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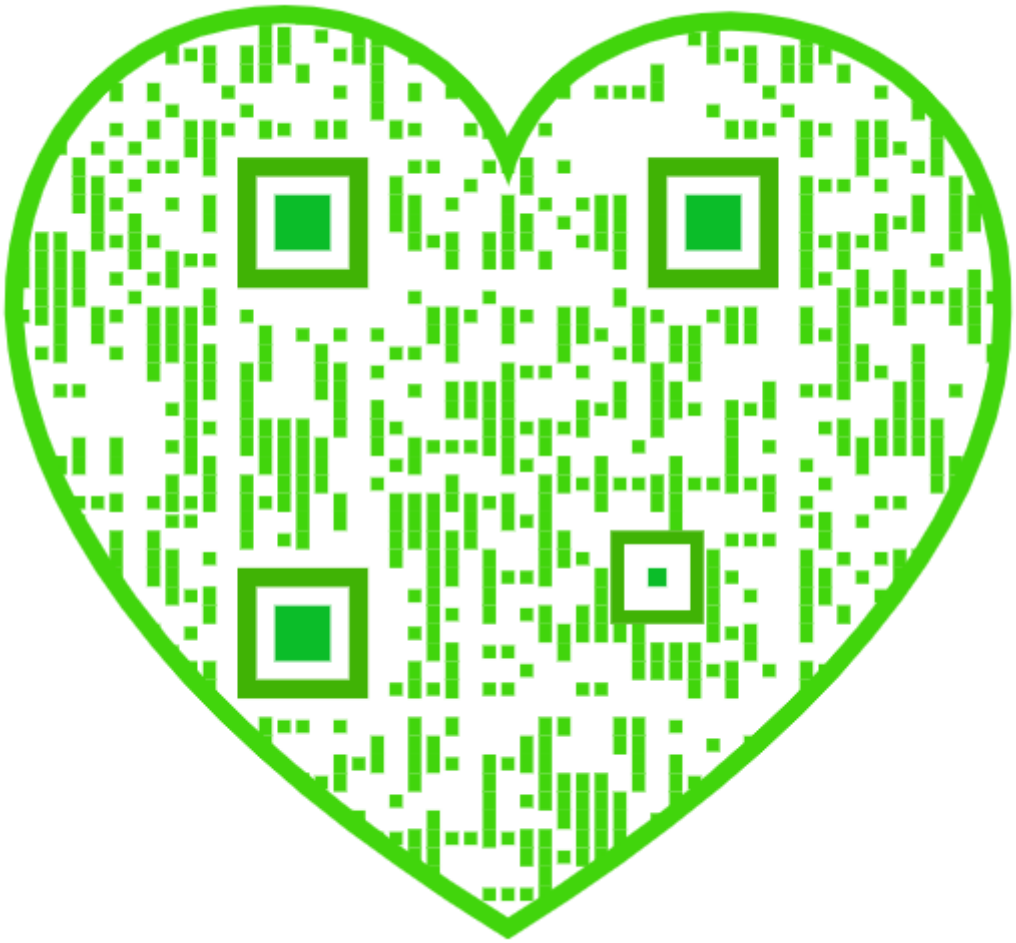
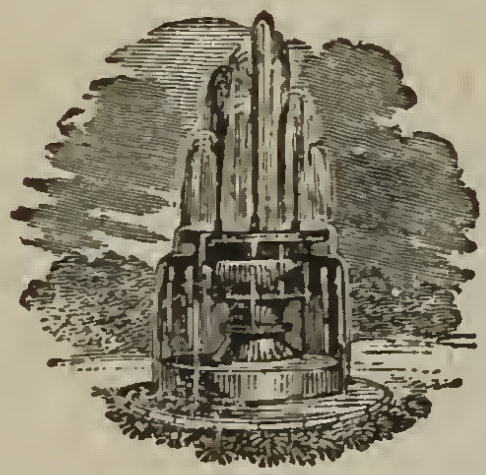


TEA AND COFFEE.

BY WM. A. ALCOTT,

Author of the Young Husband, Young Wife, Young Mother,
Young Man's Guide, &c.



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PREFACE.

THIS little volume has a twofold object. Its first and principal intention is to exhibit, in a candid and dispassionate manner, the nature, properties, and tendency on the human system, of two common beverages which, though always more or less questionable in their character, have, nevertheless, within a century or two past, obtained a strong hold upon the popular favor, and become incorporated, as it were, among the necessaries of human life. A second object has been to show the true intention of nature, in regard to drinks in general.

In pursuance of our object, we have endeavored to lay aside all theories, and

to rely solely on science, observation and experiment. Whatever may be the merits or demerits of our performance, or whatever may be its reception, it contains nothing visionary. It may not be perfect, but we believe it to be correct; and that by the test of all fair criticism, it will be found so.

Additional facts, were it necessary, might be given; but as it is exceedingly important not to increase, too much, the size of a volume designed for the serious consideration of every family in the land, and especially for those who, though in indigent circumstances, are yet subjecting themselves to the consequences of a tremendous waste, in the use of worse than useless beverages, we have concluded to omit them.

TEA AND COFFEE.

PART I.—TEA.

CHAPTER I.

GENERAL REMARKS.

Exhilarating properties of Tea. Popular ignorance concerning it. Object of this work.

That every sort of tea sold in our market, if good for any thing, is, in a greater or less degree, exciting or exhilarating, is well understood. No one would long continue to use an article—even with the addition of a quantity, larger or smaller, of good cream, milk or sugar—which had no other effect on the system than that of pure water, viz., to quench the thirst.

Of the extent and nature of the excitement of this stimulus, however, most per-

sons appear to be ignorant. They are probably unaware that it pervades, by its influence, the whole domain of animal life; and so far as it excites or exhilarates us at all, does it by operating on the nervous system, and on the stomach, liver, &c., in nearly the same way with alcoholic and fermented drinks, and opium and tobacco. They hardly realize that they are admitting to their embrace, in the guise of a pleasant and agreeable friend, a most insidious and dangerous enemy; one who is silently, though slowly, undermining and destroying the very citadel of life itself. Such, however, we shall be compelled, by a stern regard to truth, to show in the following chapters. A brief historical notice of the introduction of the tea plant to common use, may be desirable, in the first place.

CHAPTER II.

HISTORY OF TEA.

Introduction of tea into Europe. Small proportion of the population who have ever drank tea. Consumption of tea in different countries of Europe. Consumption of tea in the United States. Increase of this consumption. Estimates in regard to the future.

Tea does not appear to have been known in Europe or America, till about 200 years ago. As Europe has been settled, more or less, at least 3,200 years, it follows that, whatever may have been the case in other quarters of the globe, the inhabitants of that part of the world must have been without tea, prior to its introduction, about 3,000 years. According to the best estimate we can make from the data in our possession, tea cannot have been a common or daily beverage in Europe since its first introduction, for more than 500,000,000 of people, while the far greater number,

a number at least twenty times as great, or more than 10,000,000,000, have passed through life and gone down to the grave without tasting it. Whether among this immense host there was any want of physical vigor to enable them to till the soil, raise the structures, and fight the battles of their countries, we leave for the present to the decision of those who are familiar with the records of Greece, Rome, Britain, and other mighty or polished nations, who, having had their infancy, their maturity, and their decrepitude, have chiefly disappeared, except from the page of history.

The tea plant, of which there are two varieties—the *viridis* or green tea, and the *bohea* or black tea—is a native of China and Japan, and was for a long time confined to those countries. Attempts have, however, been recently made to cultivate it in the island of Java, and with the aid of Chinese laborers, in Brazil; and about twelve years ago it was introduced into France. We believe the plant, in both of its varieties, might be successfully cultivated —we fear it will be—in the United States.

We have already said that tea did not find its way into Europe till about 200 years ago. The East India Company appear to have first imported it, in 1664. They brought two pounds and two ounces of it, as a present to the British king. From that time to the present its use has been increasing—not rapidly, however, till within about a century or so past. The present yearly consumption of the article in Great Britain, is estimated at 30,000,000 pounds. Russia and Holland consume more tea than any other countries of Europe, except Great Britain; the former about 6,000,000, and the latter about 3,000,000 pounds. The imports into Germany amount to about 2,000,000 pounds, and into France to about 250,000 pounds only.

A recent writer in a British Review, estimates the consumption of tea in Europe as follows: Great Britain 40,000,000 pounds; Russia 6,500,000; Holland 3,800,000; Germany 2,000,000, and France 250,000. It is surprising that the consumption of this beverage should be so small, comparatively, in France; though what is wanting in

the use of tea, they make up in the use of wine, coffee and tobacco.* From official documents published by the Congress of the United States, we learn that during the four years ending with the year 1837, the importations of tea into the United States, amounted to 64,040,927 pounds, or over 16,000,000 pounds a year. What the exports of the same article were during the same period, we cannot learn; but they must have been very trifling.

The increase of imports has been rapid. In the year 1821, it was less than 5,000,000 pounds. In 1828, it was nearly 8,000,000, while in 1837, nine years later, the amount had more than doubled. At the rate of increase for the four years ending with 1837, it is estimated that the amount of importations of tea, of all the various kinds, from 1838 to 1850, inclusive of these two years, will be 245,000,000 pounds, which will probably cost the consumers no less than $150,000,000; if not more. The cost to the consumers of what has already been

* See a table at the end of this volume.

imported, and for aught we know consumed, between the years 1821 and 1837 inclusive, is estimated at $125,000,000.

Thus far has it been our object to present, in a condensed form, the European and American history of this foreign leaf. Of its Asiatic history we know very little. We only know that it is consumed in China and Japan in amazing quantities, and to a considerable extent in the adjacent countries.

Some further estimates in regard to the consumption of tea, will be made hereafter, when we come to speak of its use as a national and individual waste.

CHPATER III.

TEA A MEDICINE.

Preliminary remarks. Tea shown to be a medicinal substance. The proofs. 1. Analogy. Opium. 2. Experiment. Experiments by Drs. Lettsom, Smith and Beddoes. Observations of Mr. Cole of Great Britain. Abstract of ten cases or experiments. Testimony of Drs. Hooper, Cullen, Bell, Combe, Sweetser and Beaumont, and Mr. Graham. Experiments by Dr. Burdell. The London Quarterly Review.

We shall now attempt to show that tea, of all the ordinary varieties found in our market, is properly and strictly a medicinal substance.

Who does not know that "a good cup of tea," as it is called, taken either at the close of a fatiguing day's work, or when we are drowsy, is sufficient to remove the fatigue or dispel the drowsiness? Who has not read in the life of Anthony Benezet, a distinguished and philanthropic teacher, of Philadelphia, that he always removed the

fatigue of a long day, in the school-room, by strong tea? And how many literary men have done, and are still doing the same? But we need not go abroad in search of examples of the exciting qualities and tendencies of this substance. We find people every where, females especially, in the daily use of this beverage, either for the purpose of relieving fatigue or a disposition to sleep. And yet no one, we believe, will pretend, for one moment, that his strength is restored in these cases, by the nourishment afforded by the tea, for if there be any, it can only be in very small quantity. It takes some time for a substance to go through the whole process of digestion in the stomach and be converted into blood, to give us strength in that way. It must first be softened and dissolved by the gastric juice; then it must be manufactured into chyme; then into chyle; and lastly into blood;—so that there is reason for believing that we do not receive any material strength from the blood which is made from nutritious matter received into the stomach, till several hours have elapsed

after taking it. Whereas, the relief from tea is sudden; nay, almost instantaneous. It comes to us, in all probability, though the medium of the nervous system. The nerves of the stomach are excited—in other words, irritated—by the substance received; the irritation is conveyed to the brain, and this last is roused to impart a new and increased, though short lived energy to the whole system.

Now whether this increased energy of the system—this fictitious strength—this strength without strength—is imparted by tea, or coffee, or opium, or tobacco, or alcohol, or by several of them together, makes, in our view, but very little difference. None of these substances form a particle of blood, or give a particle of natural, healthy strength. They only give strength, or relieve fatigue, by nervous irritation. The female who restores her strength by tea, and the laboring man by a glass of spirits, and the Turk by his pill of opium, are in precisely the same condition; so far, we mean, as the matter of stimulation, merely, is concerned.

We do not mean to say that one of these substances is just as strong as the other; or that one of them is just as bad as the other; or that one of them produces *all* the bad consequences of the others. We only mean to say, that in so far as they seem to give renewed strength, they do it precisely in the same way; and if one is hurtful, the others are.

Now that the stimulus of opium, and spirits, and tobacco are hurtful, we suppose to be so generally admitted that we need not stop here to affirm or to prove it. Their use is followed by a depression, unless the dose is repeated, equal at least to the previous excitement—probably somewhat exceeding it. But to be more particular.

We have said that the first effects of tea are exciting. This is obvious from the quickened powers of conversation which are manifested so soon after its reception. The "genius of tattling" has sometimes been said to have his bower in the sediment of the tea cup. Certain it is, that not a few tea drinkers, at times, so far lose the powers of self-possession and self-com-

mand, as to do and say many things, which in their cooler hours are deeply regretted.

The effects of this beverage are also seen in the excited, and even flushed countenance; and in the preternaturally animated eye. Indeed, the vital energies of the system are roused to such increased activity, as to change even the gait, and promote, for a time, general activity, and perhaps general industry. Just as it is, often, with those who are excited with opium or alcohol, in a moderate dose. Indeed, this is the true idea of what is called, in medical language, a stimulus. There is indeed a sense in which every thing which influences the movements of the living system, may be called a stimulus; light and air not excepted. But in medical language, a stimulus, or stimulant, is that which has power to raise the living system above the standard of health. Such are opium, camphor, ammonia, alcohol and fermented liquors, wine, coffee, tea, &c.

We have said that tea is not only exciting in its first effects, but that its use is

speedily followed by vital or nervous depression. A large number of medicinal substances which are called by the general name of stimulants, have these depressing or *sedative* effects, as soon as the first effects—the feelings of excitement—are over. Perhaps this is the case with all which, without making any blood, are able to raise the energies of the system above their natural healthy standard, only that when they are not very strong, or are given in a very small dose, the depressing effects are not so quickly experienced, or so readily perceived.

It is in the sedative or depressing effects of tea that we find another strong proof of its medicinal character. If it did not first raise us above the line of health, we should never find ourselves sinking so far below it afterwards.

The following are some of the usual indications that the system is suffering from the sedative, depressing, or secondary effects of excess in the use of tea, and which lead us to regard it in the light of an extra stimulus.

The individual who uses it to excess, suffers from headache; wakefulness; palpitation of the heart; trembling; loss of muscular strength; loss of appetite; indigestion; nervous prostration; great susceptibility to fatigue; chronic affections of the vital organs, accompanied, often, by emaciation, sallowness of the skin, and a peculiar appearance of the surface of the body, that reminds one of the application of an astringent substance.* If the countenance is naturally fresh, it may, indeed, in some instances, require many years to remove the freshness entirely, and produce the morbid appearance

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* It might be worth while to inquire whether the transmission of the particles of an astringent, like tea, through the excretories of the skin, actually produces an effect not unlike that produced on hides in a tanner's vat. The eaters of tea grounds are especially noted for this *leathery* complexion—if I may so term it—as a considerable part of the tanning property remains in the tea leaves after it has been infused in the usual manner. Besides, dissections of the human body show, that notwithstanding its great vital power, the stomach is largely affected by the tannin contained in the tea.

of which we have spoken; but the effect, though slow, is certain.

We do not, indeed, deny, that in the case of a given individual, many other influences may have been combined with the tea to produce the distressing effects to which we have alluded. Yet it is still true, that many a case of distressing nervous disease owes its existence entirely to the use of tea, (joined, perhaps, to that of coffee)—such, for example, as the nervous headache, or as it is commonly, but improperly called, the sick headache. On this point, we have the most abundant testimony.

A dentist of New York,* in a letter to the author of this essay, thus remarks:

"Not a case of this disease (sick headache) has ever occurred within my knowledge, except with the drinkers of narcotic drinks, (meaning tea and coffee,) and not a

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* We allude to Dr. John Burdell, the author of "Observations on the Structure, Physiology and Anatomy of the Teeth;" to whom we are indebted for many important facts on the subject of which we are now treating, and for several interesting experiments.

case has failed of being cured on the entire renunciation of those drinks. In saying this, however, it is by no means claimed that there are no cases of sick headache to be found, except those which owe their origin to tea and coffee. I only affirm that I have never known of any such cases. Whatever may be said of the violations of physical law in other respects, tea and coffee may claim sick headache as their highly favored representative."

Who are they that complain most of nervousness, of irregular appetite and sleep, of unequal warmth and strength, of their own ill health in general; and who suffer most from the dread of poverty, sickness, death and future wo? Who find most fault with the world around them, and with the dispensations and arrangements of Divine Providence? Who complain most, other things being equal, of the emptiness and sickliness of all things below the sun? We do not ask who entertains the strongest belief of this kind, but who complains most, and frets most? Assuredly, it is the person who uses the

most excitants of the nervous system; and in this class, tea and coffee drinkers often have the pre-eminence. Not indeed when under the first influence of their beverage, but while they are suffering from its sedative effects.

But we shall be required to prove that tea has the sedative or depressing effects which its enemies ascribe to it. It is not enough, we shall be told, to assert it. We want proof.

Our first proof is drawn from analogy. Let us consider, for a moment, the effects of opium—a drug which has gained a high degree of celebrity, not only among physicians, but among the community generally. Its power to alleviate pain is well known. If the nerve of a tooth is so excited or irritated as to cause pain, opium, either solid or in the form of laudanum, is applied to allay the irritation and soothe the worried powers of the nervous system. So in case of pain from almost any other cause. Opium, in a larger or smaller dose, according to the exigency, relieves it. If the pain is very great, a dose is required

in proportion; but if slight, it need not be large. The larger the dose, however, the less obvious are its exciting effects, and the sooner do we perceive its secondary, depressing tendency. If the dose, on the contrary, is very small, the excitement or animation produced lasts longer, and the depression is either less obvious or less immediate. So is it, in fact, with alcohol, and with digitalis or fox glove; and in fact with almost all exciting substances—exciting we mean to the nervous system, almost exclusively—and hence is it that by common consent they are excluded from the list of articles adapted to common use, at our tables, either alone or when mingled with our food or our appropriate drink.*

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* This statement may require a little qualification. Mustard, pepper, spice, ginger, cinnamon, and many more things which come under the general name of condiments, and are used, not to give us nourishment in themselves, but only to give us a relish for those other things which are supposed to contain real nourishment, are of this description, and are, therefore, really and properly medicines. And we have known alcohol mixed with coffee, as arsenic has been with cheese, and asa-

Every temporary reprieve from nervous headache, or from any other painful affection, which tea affords, confirms the idea of an analogy in nature and properties between this substance and opium, and other sedative medicines, and shows its unfitness for use as a common beverage.*

But we are not left to analogy in this

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fœtida with beef-steak. For proof that arsenic has been mixed with cheese, see Library of Health, vol. ii. page 69. As for asafœtida, it is customary for a Professor of Materia Medica, in one of our colleges, to relate to his students an anecdote of a cook in Philadelphia, whose reputation for preparing beaf-steak becoming very great, and the public curiosity becoming much excited on the subject, it was ascertained that her skill and success lay in rubbing over the platter on which she laid the steak, hot from the fire, with a piece of asafœtida. Is there any security, then, that opium, tobacco, and other strong medicines, will not come to our tables?

* Some, it is true, may not see at once why an article may not be proper as food and medicine both. We can only say, in a work like this, that they cannot and must not both go together; that food and medicine are utterly incompatible with each other in their effects; and that in this view—were the view generally received—many of those encomiums might be spared which have been so profusely lavished on onions, tomatoes and many other eatables.

matter. The dentist to whom we have already referred, having often noticed the great *nervousness* of tea drinkers—so great, indeed, that he was often led in consequence of it to suspend for a time his operations—resolved at length on the following experiment.

One pound of young hyson tea having been steeped in soft water, and the "grounds" strained out, the decoction was evaporated to half a pint. This extract was applied to the nerves of those teeth which required an operation, in order to lessen their sensibility, and thus prevent much of the pain. The experiment was completely successful; and finding it answer his purpose, he has ever since continued the use of it.

In this way it is said that this substance may be used as an efficient substitute for opium, oil of cloves, creosote and arsenic, all of which have been more or less employed by the mass of the people, and by dentists themselves, for the purpose of lessening or destroying the sensibility of the dental nerves.

There are, however, other and numerous experiments on record, showing the sedative effects of tea on the human system. We shall pass by, for the present, the remarkable ones of Drs. Smith, Lettsom and Beddoes, and refer the reader to the more recent observations of a distinguised British surgeon, Mr. John Cole.

This gentleman, who is a member of the Royal College of Surgeons in London, read before the London Medical Society, not long since, a series of observations on the deleterious effects of tea and coffee, when used in excessive quantities, which after undergoing a public discussion, was published in the London Lancet, a medical journal of high reputation, and subsequently introduced to the columns of the Transylvania Medical Journal, published at Lexington, Kentucky. We consider the facts and observations—experiments, we have called them—of Mr. Cole, as of very high importance in their bearing on the subject before us, and of unquestionable authority.

Mr. C. first endeavors to show, that the evil effects of tea are more obvious, on

those constitutions whose tone has been lowered from the healthy standard, by fatigue, sickness, loss of blood, &c. In other words, he shows that the persons who suppose themselves most benefited by tea, are the very persons, above all others, who are most readily and most certainly injured by its use.

He next proceeds to describe the symptoms of what may, with propriety, be called the *tea disease*—a disease which, in regard to many of its symptoms, is becoming quite common, not only in the eastern, but also in the western hemisphere. He says:

"Tea seems also to have the power of reducing the constitution, when taken for a long time in excessive quantity, to that state in which it becomes accessible to its deleterious influence. In a longer or a shorter time after taking the beverage—from a few minutes to two or three hours—an uncomfortable feeling arises in the stomach; a craving, sinking emptiness, which soon acquires a degree of intensity that is almost insupportable. The hunger-like

gnawing and craving are described as to the last degree painful to bear. The stomach being full has no effect in preventing its accession; neither does eating relieve it. This is often all that is felt for a long time; but by degrees a fluttering, of as a bird, in the left side, is superadded; and a feeling of fulness pervades the chest, with breathless and frequent sighing. The fulness is more especially felt about the clavicles—the "shoulder blades"—and root of the neck.

"When black tea or coffee has been taken, considerable excitement often ushers in this succession of phenomena; the face becomes flushed, the eyes sparkle with an unusual brilliance; all the earlier effects of intoxication from alcohol are observable—the pulse being full and throbbing, and considerably quickened. If green tea have been taken, the previous excitement is less, or perhaps not at all perceptible; the skin soon becomes pale, the eyes become sunken, the pulse feeble, quick and fluttering, or slow and weak.

"Whichever may have been taken, in

the progress of the affection, the hands and feet often become cold as marble, and bedewed with a clammy sweat. Efforts to warm them are made in vain, even in the hottest weather; a feeling of coldness and numbness also invades the back part of the head.

"This is the milder form of the disease, (if I may so term it,) the one which is most commonly seen; but occasionally a variety of aggravated symptoms arise. To the coldness and benumbed feeling of the back of the head, there is added formication of the scalp"—a sensation as if ants were creeping in it—"violent pain in the head, dimness of the sight, unsteadiness in walking, and vertigo; and these are accompanied by a fluttering feeble pulse. To the feeling of fulness of the chest and about the clavicles, are added threatening of suffocation, insensibility, and convulsions. The sufferings felt in the stomach are aggravated to violent spasms. The fluttering at the heart becomes pain, violent palpitation, or enfeebled action, bringing a syncope. I may add, here, that the

mind does not escape, but partakes of the disorders of the body, as is seen by the temper becoming peevish and irritable, so as to render the sufferer a torment to all those about him."

This is the general account of the symptoms of the "tea disease." Who does not see, in an article that can induce all these mischiefs on the living human system, a medicinal substance of great power —one that cannot be safely trifled with. Mr. Cole sums up the whole as follows :

"The stomach is the first to experience the deleterious influence, as is evidenced by the craving, sinking, empty feeling, with which it is affected; next the heart is felt to flutter and palpitate; then there seems to come on a difficulty about the large blood vessels, and a fulness is felt about the clavicles; and lastly, the influence extends to the brain, producing insensibility and convulsions;—but the heart is the organ whose functions are most constantly and most seriously disturbed."

Mr. C. brings forward a list of ten cases of disease from tea drinking, which oc-

curred in his own practice, some of which are very interesting. Their great length renders it impossible for us to give place to them in this work, although they could scarcely fail to instruct and profit every one who is seeking for information on the subject. We can only give a general account of them.

His first case was that of a female, thirty-five years of age, who complained of great pain in the stomach after eating, with a sense of sinking and emptiness, and such a feeling of faintness that she could scarcely walk, followed at length by the fluttering in the side, fulness about the clavicles, and vomiting.

Multitudes who have this feeling of faintness, unattended as it usually is by the pain and vomiting, take a glass of cider, or wine, or spirits, or a little medicine of some sort. This usually removes the gnawing and faintness, but in nine cases in ten, induces habits which are much worse—frequently downright intemperance.

The second case was that of a female,

about forty years of age. She was just recovering from a catarrhal fever, when one morning about half an hour after taking her usual breakfast, consisting of tea and bread and butter, she was seized with symptoms similar to those already mentioned, except the vomiting. It appeared on inquiry, that her tea that morning, (it was black tea,) had not only been accidentally made stronger than usual, but she had drank more than she was accustomed to do.

This lady, had she been told at any time previous to her sickness that tea was injurious, would in all probability have met the suggestion, by saying that she had used it for a long series of years, not only without the least injury, but with positive benefit. Whereas, admitting it had afforded temporary relief, in some of her nervous affections, the tone of her constitution had been constantly lowering, and she was approaching all the while the confines of disease. She was under the necessity of having her favorite beverage made stronger and stronger, or of drinking

more of it in order to effect a cure; and she was so impairing her vital energies, that those exciting causes of disease, which a more vigorous constitution might have repelled, would now take effect. Thus it is with all those things whose daily use lowers the tone of the constitution, as tea, coffee, fermented and distilled liquors, tobacco, opium, condiments, oils, &c. &c. The person who uses them may flatter himself that they do him no harm, because sentence against an evil work is not executed speedily, as Solomon expresses it; yet nothing can be more certain, than that all persons who use these things are lowering the standard of health, by impairing the tone of their vital powers, so that by and by a cause comparatively trifling may excite disease. No musket, however well loaded and primed—furnished with lock, flint, &c.—will go off till ignited by a spark; and in like manner is it with those who are loading all their life time with disease. The brands which they are perpetually applying will be pretty sure to cause explosions more or less frequently;

and a small spark will but seldom fail to produce the same effect. In the case before us, the long use of tea and other improper food and drink, had so prepared the constitution for disease, that a little more of it than usual—and a *little* stronger—was sufficient to ignite the mass and cause the explosion.

Mr. C.'s third case was that of a lady also. She was thirty years of age, and had long been in the habit of using green tea, very strong, and in large quantity. For a year before Mr. C. was called to see her, she had been subject to violent spasms—cramp, as it is often called—in the stomach, which had at length become so frequent and severe, that the slightest exertion, even a little walking, was sufficient to bring them on. When Mr. C. arrived, she was suffering from the spasms, and they were of unusual violence. She had, likewise, the other symptoms of tea disease. On inquiry, he was fully satisfied that *all* the trouble, in this case, was the effect of the tea. She was accordingly directed to leave off using it, which she

did. For some weeks she had no return of the spasms or of the other symptoms of disease, till one day venturing upon a single cup of her favorite beverage, she had a slight attack immediately afterward. From that time forth she persevered in total abstinence, and remained perfectly well.

We ought to have said before now, that this distinguished surgeon and physician was not in the habit of prescribing any medicine in strongly marked cases of the tea disease, (except during the fits or paroxysms,) unaccompanied with any other affection. Total abstinence from both tea and coffee was in general his only prescription, and was eminently successful in all the cases he has recorded, as well as in the large number of similar cases which he assures us he has omitted to describe.—What stronger proof do we want that it was the tea that did the mischief?

His fourth case was that of a female, thirty years of age. She had the usual symptoms of excess in the use of tea, with the usual suffering of the nervous system.

The tea she used was also green tea. She had taken fox glove and colchicum for her complaints a fortnight, but with no effect but to aggravate her sufferings, as might have been expected from the addition of two more poisons to one which was already destroying her constitution. She abstained from tea, and recovered in three days.

The fifth case was a female twenty-five years of age, a famous tea drinker. When Mr. C. was called, he prohibited tea as usual; but was surprised to find, on repeating his daily visits for a week or so, that she got no better. On a more rigid search, he found she was still indulging in tea, both night and morning, as usual. She now complied with his prohibition, and in a few days was well.

Case sixth was that of an author and parliamentary reporter, of middle age. He was a great drinker of green tea, and sometimes drank it strong, as his common drink, for five or six hours together, to keep up his mental strength. It came at length to produce such an effect upon him, that two or three times a week he was found

lying in a state of insensibility on the floor. He was cured in the usual manner.

A middle aged mother was the seventh case. She had for some time been subject to occasional fits of insensibility, the attacks of which had recurred in the evening. She was in the habitual use of black tea, morning and evening; and Mr. C., suspecting this to be the cause, especially as she had taken the strongest medicines with no success, put her, at once, upon his usual course of abstinence from every drink but water, and she quickly recovered.

A shop-keeper, about forty years of age, is next mentioned. He was not confined to the use of tea, but was a great coffee drinker. His symptoms were not unlike those already described, but his head was much more affected. To total abstinence from all drinks but water, was added, in this case, for ten days, a little valerian.

The ninth case was that of a young man of twenty-two—a great drinker, even at this early age, of black tea. In addition to other symptoms of the tea disease, he

was at length attacked with bleeding at the nose, and finally with convulsions, or as the bystanders called them, "fits." He was cured in a short time in nearly the usual manner.

The last case mentioned is that of a lady—a devoted slave to the tea-pot. She had long been a sufferer in the usual manner, but would not abandon the cause of her suffering, till a severe cough and bloody expectoration compelled her to do so.

Mr. C. concludes his remarks as follows:

"I could extend the number of cases so as to form a body of evidence which it would be difficult to resist. Those I have brought forward are, I think, sufficient to excite considerable doubt as to the harmless qualities of

'The cups that cheer, but not inebriate.'

"If it be true, as it has been held"—and with truth, we are quite confident—"that the continued disturbance of the function of an organ, will induce change of structure, what are we to expect from the use

of tea twice a day, when it deranges the function of the heart for three or four hours after each time of its being taken? If the answer be that it may be expected to induce some structural disease, then there arises this other question—May not the greater prevalence of cardiac disease"—heart disease—"of late years, have been considerably influenced by the increased consumption of tea and coffee?"

Now can any person who reads of these tremendous effects of tea in reducing the powers of the human constitution, when taken in excess, presume to doubt that a medicine which, in large quantities, is capable, (under circumstances that favor its action,) of doing so much mischief, is more or less injurious in the smallest quantity?*

We may here add, that tea—green tea,

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* If tea is *not* injurious in small quantities, it is quite unlike most or all other medicinal substances of the same class. Small doses of alcohol, opium, calomel, &c., produce even *more* lasting effects upon the system, *in proportion to their quantity*, than large ones. How then can it be otherwise with tea?

especially—as a medicine, is not confined to London or New York, but is attracting the attention of practitioners of medicine elsewhere. The Boston Medical and Surgical Journal—one of the last to admit to its columns any thing likely to weigh against the popularity of a favorite beverage—in a communication in the number for May 1st, speaks of green tea as an efficient medicine in burns and scalds; which could hardly be, if it were that inert or harmless thing it has generally been supposed. It is also spoken of in the Transylvania journal of medicine, as an anodyne in some cases; as truly so as opium.

We had intended to insert numerous extracts from medical and other writers of acknowledged authority, tending to show the influence which tea has upon the human constitution, and especially upon the nervous system; but we shall be obliged to confine ourselves to a few of those which seem the most important.

Hooper, in his Medical Dictionary, says —"Tea, in its natural state, is a narcotic

plant, on which account the Chinese refrain from its use till it has been divested of this property by keeping it at least twelve months. When taken too copiously, it is apt to occasion weakness, tremor, palsies, and various other symptoms arising from narcotic plants."

All the teas we receive, must have been kept, at the least, several months; and if in that time, though they have lost much of their narcotic power, they are still capable of accomplishing the deadly work ascribed to them, especially by the experiments of Dr. Burdell of New York, and those of Drs. Smith, Lettsom and Beddoes, (which are to be mentioned presently,) what must be the virulence of the poison of the fresh gathered leaves?

Dr. Cullen, a Scotch physician of great eminence, whose writings are among the standard works of our best medical schools, says that "scientific experiments prove that an infusion of green tea has the effect to destroy the sensibility of the nerves, and the irritability of the muscles." He says further, without excluding the

black tea, the properties of which we have already seen to be essentially the same with those of the green tea, only less active—"From the experiments above mentioned, and from the *observations* which I have made in the course of *fifty years*, upon all sorts of persons, I am convinced that the properties of tea are both narcotic and sedative."

But what does Dr. Cullen mean by narcotic? His definition is—"As their power and operation (that of narcotics in general) may be extended so far as to extinguish the vital principle altogether, they form that set of substances which properly and strictly may be called poisonous."

The Encyclopædia Americana says—"The effects of tea on the human system are those of every mild narcotic, taken in small quantities—exhilarating."

The Catechism of Health—usually ascribed to the distinguished Dr. Bell, of Philadelphia—says that "tea, (black tea, we suppose he means, as well as green,) when drank strong and in large quantity,

impairs the powers of the stomach, produces various *nervous* symptoms," &c.

Dr. Combe, in his work on Digestion and Dietetics, observes, that "when made very strong, or taken in large quantity, especially late in the evening, they (tea and coffee) not only ruin the stomach, but very seriously derange the health of the brain and nervous system."

Prof. Sweetser, of this city, in a work on Digestion and its Disorders, says of both kinds of tea, black and green, that "owing to a volatile oil they contain, they are both stimulant to the nervous system." After proceeding to mention all, or nearly all the effects which have been attributed to tea by Mr. Cole and others, and noticing the custom of many physicians of attributing these effects to other causes rather than the tea, he concludes by saying—"I am inclined to think that the evil is to be ascribed to the peculiar properties of the tea itself."

Dr. Beaumont, whose experiments have attracted the attention of the whole medical world, says—"Even coffee and tea, the common beverages of all classes of the

people, have a tendency to debilitate the digestive organs. Let any one who is in the habit of drinking either of these articles in a weak decoction, take two or three cups made very strong, and he will soon be aware of their injurious tendency. Yet this is only an *addition* to the *strength* of the narcotic he is in the constant habit of using."

The reader will not fail to observe, that Dr. Beaumont calls tea, no less than coffee, a *narcotic;* and his testimony will be the more valuable in the view of many, as he does not bring it to sustain a *theory*, but as the result, merely, of experiment—as pure matter of science.

Sylvester Graham, in his lectures on the Science of Human Life, has the following just and appropriate remarks:

"There is no truth in science more fully ascertained, than that both tea and coffee are among the most powerful poisons of the vegetable kingdom. As early as 1767, Dr. Smith of Edinburgh, demonstrated by a series of careful experiments, that an infusion of green tea has the same effect as

henbane, tobacco, cicuta, &c., on the living tissues of the animal body; in all cases first diminishing and finally destroying their vital properties. In 1772, Dr. Lettsom, of Ireland, made a series of similar experiments, with the same result: and still later, Dr. Beddoes, of England, by a series of experiments several times repeated, completely demonstrated that tea is as powerfully destructive to life, as laurel water, opium or digitalis. Indeed, it is entirely certain, that a small quantity of a strong decoction of tea or coffee, will destroy human life in one unaccustomed to the use of it, as quickly as an equal quantity of laudanum." See vol. ii., page 605.

On page 606, he also says—"If instead of commencing the use of these substances in very small quantities, a full cup of strong tea or coffee were taken at the first time, either by a youth or a full grown person, of a healthy and undepraved body, the violent and distressing symptoms which would inevitably result, in every case, would leave no doubt of the poisonous

character of these substances." Once more: "Considering how early in life tea and coffee are introduced into the diet of children, and how universally and freely they are used by both sexes of every age, it is greatly to be doubted whether they are not, at present, actually doing more injury to the human constitution, and in a greater measure destroying human health, life and happiness, than any other intoxicating substance used in christendom."

There is no way, we are assured, of evading the force of the evidence we have presented, but by questioning our authorities. But if these cannot be relied on, what is there that can be? Should any individual, however, be disposed to shelter his scepticism under the plea that much of our testimony is from deceased men, or from foreign countries, we beg to be heard a little longer, while we attempt to show that tea is something more than an ordinary medicine.

CHAPTER IV.

TEA A POISON.

Definition of our term, *poison*. Examples for illustration. Testimony on the subject. Experiments on small animals. Mode of mixing poison with tea at Canton, in China.

We are now to show that tea is absolutely poisonous. But we must inform our readers, ere we proceed, what we mean by the term *poison*.

We have said that almost all things which act upon the human constitution—light and air not excepted—may be regarded as in a certain sense, stimuli. But there are few of them, very few indeed, which are truly poisonous.

By a poison, then, we mean a substance which, in any appreciable quantity, has the power of itself, and without any change of its properties, of destroying the vital

properties and vital constitution of the human body. They are those substances, in other words, which are *anti-vital* in their tendency. Such is the tendency of opium, and arsenic, and alcohol, and digitalis, and a thousand other articles of the materia medica.

We use the qualifying phrase, "without any change of its properties," because there are many substances in nature, which are perfectly innoxious in their purely natural state, or indeed in some particular states not necessarily natural, which by a chemical operation, or change, can be made to produce a very active poison. Wheat is a striking example of this; and so indeed are all the farinaceous grains. Not a particle of poison can be obtained from all the pure and perfect grains in the whole world; and this for a very obvious reason—they contain none. And yet by a chemical change, and one, too, which is so common as to be quite within the range of common observation—we mean fermentation—all these grains can be made to produce the strong poison which we call alcohol.

But does tea really possess the qualities of a poison, is the question. Is it anti-vital in its tendencies, like the substances we have mentioned? Perhaps the evidence we have already brought forward to show it to be a very active medicine—one especially which exercises a powerful control over the nervous system, and is able to produce so great a depression, and so severe a prostration of the nervous system, as that which has been described—perhaps, we say, a close attention to the evidence will be enough to satisfy every candid and unprejudiced mind, that tea is poisonous. It seems to us impossible, as we have already intimated, that any intelligent person—any medical man above all—can resist it. But if it were so, how could he resist the other testimonies—those of Drs. Clark, Lettsom and Beddoes, for example, as well as several others who testify to its poisonous nature—some of them as the result of actual experiment?

But we have other evidence. It is pretty well known that tea—we mean a strong decoction of it—like many other sedative

and poisonous medicines, will destroy vermin infesting open hearths, fire-places, beds, &c. A mere touch of a strong extract is said by medical men to extinguish life at once. The same strong decoction has been applied by Dr. Beddoes, to hearts just taken from living frogs, with the effect to destroy their vitality almost as soon as that deadlier poison, prussic acid. But we have alluded to the experiments of Dr. Beddoes already.

Dr. Burdell, of New York, some of whose experiments we have already mentioned, performed several others upon the smaller animals, such as birds, rabbits, cats, &c. In the performance of these, the same strong decoction, or as he calls it, *extract*, was used. We give the experiments in his own language, and accompanied with his own reflections.

"1. A yellow bird received one drop (of the decoction) upon its tongue. It died in fifteen minutes.

"2. A yellow bird. One drop was passed into its stomach, and it died instantly—in a single minute.

"3. A yellow bird. It was destroyed by an application of the extract to the eye.

"4. A rabbit, three months old. Ten drops were administered. In ten minutes it was dead. During the first three or four minutes, it was highly excited—exhilarated—it then lay down upon its side, moaning, as if suffering much pain, until it died. Its muscles were fixed, as in a spasmodic state.

"How analogous this to the case of many a human sufferer, who is thus, though unwittingly, a self-inflicter of misery! A female drinks tea—feels revived, (a revival of poison,) but ere long a headache ensues, or a season of melancholy, or a pain in the chest; or if there is a predisposition to consumption, a constant series of coughs. Indeed, the symptoms of violence done to the system, in such a case, are almost endless. And yet the sufferer may be utterly unconscious that she is filling her own flesh with anguish, and committing slow but certain suicide.

"5. A cat, three months old. In this case, the extract given was stronger; the

decoction of a pound being evaporated to a gill. Eight drops were given. In three minutes the animal was dead."

Now can any one receive these statements, and not find himself compelled to place tea on the same footing with other poisons?

But we have not yet done. From the busy commercial world we derive the following additional facts, which we deem worthy of respectful notice and consideration.

The London Quarterly Review assures us that there is a manufactory near Canton, in China, where the worst kinds of coarse black tea are converted into green tea, by means of heating the leaves moderately on iron, and mixing with it, in the mean time, a composition of turmeric, indigo and white lead; by which process it acquires a blooming blue color, not unlike that of plums, and that crispy appearance which is supposed to indicate the fine green teas. The writer says he saw 50,000 chests of this spurious article ready for shipping, and

on inquiring for what market it was intended, was told that it was for the American.

Other statements speak of Prussian blue and plaster of Paris; but whatever the truth in the case may be, we have reason, at the least, to *suspect* that a large share of the teas imported, are damaged or worthless teas, *manufactured to suit the market. The Americans must have tea, and the Chinese, an accommodating people, are ready to furnish them with it!*

CHAPTER V.

MANNER OF USING TEA.

Two great evils in using tea according to the existing fashion. Too much fluid retards digestion—prevents the proper mastication of our food—and injures the teeth. The stomach injured by hot drinks. Proofs on this subject from the experiments of Dr. Beaumont. Reflections. Extracts from a recent work on the Teeth. Illustrations. Letter to the editor, with accompanying illustrations.

WERE there no objections to the present use of tea, there are yet very grave objections to be urged against the manner of using it. This involves two great evils. 1. The reception of an unnecessary quantity of fluid. 2. The swallowing of so much hot drink.

I. We are to speak in the first place of the use of an unnecessary quantity of fluid.

A very small portion of the fluid commonly used would supply the wants of the

system, when the diet is such as it should be. The physiological demands for fluid are only such as to keep the blood in a sufficiently diluted state. As the watery parts of the blood become, as we should say, *used up*, nature, throughout the suffering system, institutes a call for something to supply their place; the sensation of which want is referred to the stomach, mouth and throat —particularly the two latter; and this we call thirst. Now there is nothing in the wide world which answers this call of nature, and dilutes the blood so well, as pure, soft water; nor is there, indeed, any thing else, properly speaking, that will do it; since all other liquids or juices of fruits that quench thirst at all, do it by virtue of the water—more or less—which they contain.

We have said that nature demands, even of this fluid, only just enough to keep the blood properly diluted. More than this overloads the system, and compels the absorbents of the stomach and the secretory organs to perform needless tasks. The results are,

1. *A retarded digestion.* When fluids are received with our food, they must first be taken up by the absorbents of the stomach, before digestion will commence; for the stomach refuses to secrete gastric juice, in any considerable degree, as long as much fluid is present in it. Hence it is that digestion must be delayed in proportion to the quantity of liquid which is received with our food. Hence, too, we might add, one cause of many unpleasant sensations, as a sense of fulness, as if there were a load on the stomach, flatulence, heartburn, &c.

2. *Want of proper mastication of the food itself.* Those who use much fluid at their meals, are apt to masticate their food but slightly. For this reason the latter is but poorly prepared for the stomach, and the labor of digestion is rendered not only slower, but more difficult.

The celebrated Dr. Arbuthnot says—"Mastication is a very necessary preparation of solid aliment, without which there can be no good digestion." It will be readily seen that food thoroughly and well

mingled with the saliva, its natural and proper softening fluid, must be more readily acted upon by the gastric fluid—the proper solvent of the stomach—than if it were swallowed in large fragments. Full meals, large quantities of fluid, and crudely prepared food, *washed down*, will not fail to tax severely the digestive powers of the most vigorous, while the feeble will be broken down thereby at an early age.

3. *Injury to the teeth.* It is a general law of the animal economy, that to an unemployed portion of the system, nutritious matter ceases to be furnished. Thus if an arm be hung in a sling for years together, it will waste away; the bones will become thin and white, while the opposite arm, perhaps, from increased use, will have become firmer and stronger. Hence fencers are seen with the right wrist larger than the left; and those laborers who use the left arm but little, have the whole right arm considerably the largest.

Now the use of large quantities of fluid at our meals, deprives the teeth of their appropriate work, and consequently of the

means which nature has designed for hardening them. Softness and decay soon ensue; and pains, and swellings, and violent operations, assist in filling up the catalogue of self-inflicted human ills. But we shall say something more, presently, of the injury done by tea to the teeth.

II. The second evil which the present fashionable manner of using tea involves, is the taking of hot drinks.

This evil is so serious, that some physicians have doubted whether the chief cause of the premature decay of teeth in tea drinkers, was not the caloric or heat, rather than the tea itself. The long continued application of heat to the skin has been known to produce some of the worst forms of erysipelas. Now the membrane which lines the stomach, though much thinner than the skin, has a special resemblance to it, both in its structure and nature. It is scarcely possible that a less delicate membrane should suffer, as in the case of erysipelas, from heat, while the more delicate one would escape.

Is it asked how it is possible for injury to be done to so vital an organ as the stomach, without our being sensible of it? We reply by a few literal quotations from Dr. Beaumont, as found in his "Experiments and Observations on the Gastric Juice," pages 237, 238 and 239.*

"Aug. 1, 8 o'clock, A. M. Examined stomach before eating any thing. Inner membrane morbid—considerable erythema and some apthous patches on the exposed surface—-secretions vitiated—-extracted about half an ounce of gastric juice—not clear and pure, as in health—quite viscid.

Aug. 2, 8 o'clock, A. M. Circumstances and appearances very similar to those of yesterday morning. Extracted one ounce

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* It may not be known to all of our readers, that Dr. Beaumont was a surgeon of the United States army; and that a soldier in the army, by the name of Alexis St. Martin, had his side so shot away in battle, as to leave, on recovery, an external opening into the stomach, through which, and by means of which, (by keeping it bound up or opening it at pleasure,) Dr. B. performed many curious and important experiments on the gastric juice. We have witnessed some of his experiments ourselves.

of gastric fluid—consisted of unusual proportions of vitiated mucus, saliva, and some bile, tinged slightly with blood, appearing to exude from the surface of the erythema and apthous patches, which were tenderer and more irritable than usual. St. Martin complains of no sense of pain, symptoms of indisposition, or even of impaired appetite." (Our readers will mark this.) "Temperature of the stomach 101."

"Aug. 3, 7 o'clock, A. M. Inner membranes of stomach unusually morbid—the erythmatous appearance more extensive, and spots more livid than usual; from the surface of some of which exuded grumous blood—the apthous patches larger and more numerous—the mucous covering thicker than common, and the gastric secretions much more vitiated. The gastric fluids extracted this morning were mixed with a large proportion of thick ropy mucus, and considerable muco-purulent matter, slightly tinged with blood, resembling the discharges from the bowels in some cases of chronic dysentery. Notwithstanding this diseased appearance of the stomach, no

very essential aberration of its functions was manifested. St. Martin complains of no symptoms indicating any general derangement of the system, except an uneasy sensation and tenderness at the pit of the stomach, and some vertigo, with dimness and yellowness of vision on stooping down and rising again—has a thin yellowish brown coat on his tongue, and his countenance is rather sallow—pulse uniform and regular—appetite good—rests quietly, and sleeps as well as usual.

"Aug. 4, 8 o'clock, A. M. Stomach empty; less of the apthous patches than yesterday—erythematous appearance more extensively diffused over the inner coats, and the surface inclined to bleed—secretions vitiated. Extracted about an ounce of gastric fluid, consisting of ropy mucus, some bile, and less of the muco-purulent matter than yesterday—flavor peculiarly fœtid and disagreeable—alkalescent and insipid—no perceptible acid. Appetite good; rests well, and no indication of general disease or indisposition."

These experiments were continued both

on the 5th and 6th of August, at the usual hours. The state of the membrane, and the character of the fluids, during this time, were gradually approximating to perfect health.

Perhaps we ought here to observe, that St. Martin had brought upon himself this state of stomach by several days of intemperance; and that during six days of experimenting upon him, he was confined to low diet, and to simple diluent drinks.

The following are Dr. B.'s concluding statements, with his comments, on the case; to the latter of which we beg particular attention, as they are just such remarks as the truth in the case seems to us to warrant.

"Diseased appearances, similar to those mentioned above, have frequently presented themselves in the course of my experiments and examinations, as the reader will have perceived. They have generally, if not always, succeeded to some appreciable cause. Improper indulgence in eating and drinking, has been the most common precursor of these diseased conditions of the

coats of the stomach. The free use of ardent spirits, wine, beer, or any intoxicating liquor, when continued for some days, has invariably produced these morbid changes. Eating voraciously, or to excess; swallowing food coarsely masticated, or too fast; the introduction of solid pieces of meat, suspended by cords, into the stomach, or of muslin bags of aliment secured in the same way, almost invariably produce similar effects, if repeated a number of times in close succession.

"These morbid changes and conditions are, however, seldom indicated by any ordinary symptoms or particular sensations described or complained of, unless when in excess, or when there have been corresponding symptoms of a general affection of the system. They could not, in fact, in most cases, have been anticipated from any external symptoms; and their existence was only ascertained by actual ocular demonstration.

"It is interesting to observe to what extent the stomach, perhaps the most important organ of the *animal* system, may

become diseased, without manifesting any external symptoms of such disease, or any evident signs of functional aberration.—Vitiated secretions may also take place, and continue for some time, without affecting the health in any *sensible* degree. Extensive active or chronic disease may exist in the membranous tissues of the stomach and bowels more frequently than has generally been believed; and it is possible that there are good grounds for the opinion advanced by a celebrated teacher of medicine, that most febrile complaints are the effects of gastric and enteric inflammations. In the case of the subject of these experiments, inflammation certainly does exist to a considerable extent, even in an *apparent* state of health."

We trust the reader will not complain of the length of these extracts, or of the tediousness of the accompanying remarks, since their bearing on the subject under discussion is so manifest. For if the stomach of a young man of a very hardy, healthy appearance—and in our opinion possessed of an *iron* constitution, as it is sometimes

called—suffered in the way above described, how can the stomachs of persons less vigorous, and at the same time less actively employed than he, be expected to eseape? Let our readers, young and old, reflect upon the consequences of an indulged appetite for hot exhilarating drinks, and judge for themselves whether it is best for them to secure now, in early life, and before it is too late, a healthy constitution; or for the sake of present indulgence, to bring upon themselves and those whose constitutions may be affected by theirs, a sickly, crazy system, with a feeble and premature old age.

But the teeth also come in for a pretty large share of the evil of using hot drinks, especially hot tea. The individual to whom we have before repeatedly referred, in a work entitled "Observations on the Structure, Physiology and Anatomy of the Teeth," at page 45 has the following language:—

"Hot and very cold substances, when taken into the mouth, likewise injure the teeth. This is confirmed by the fact that

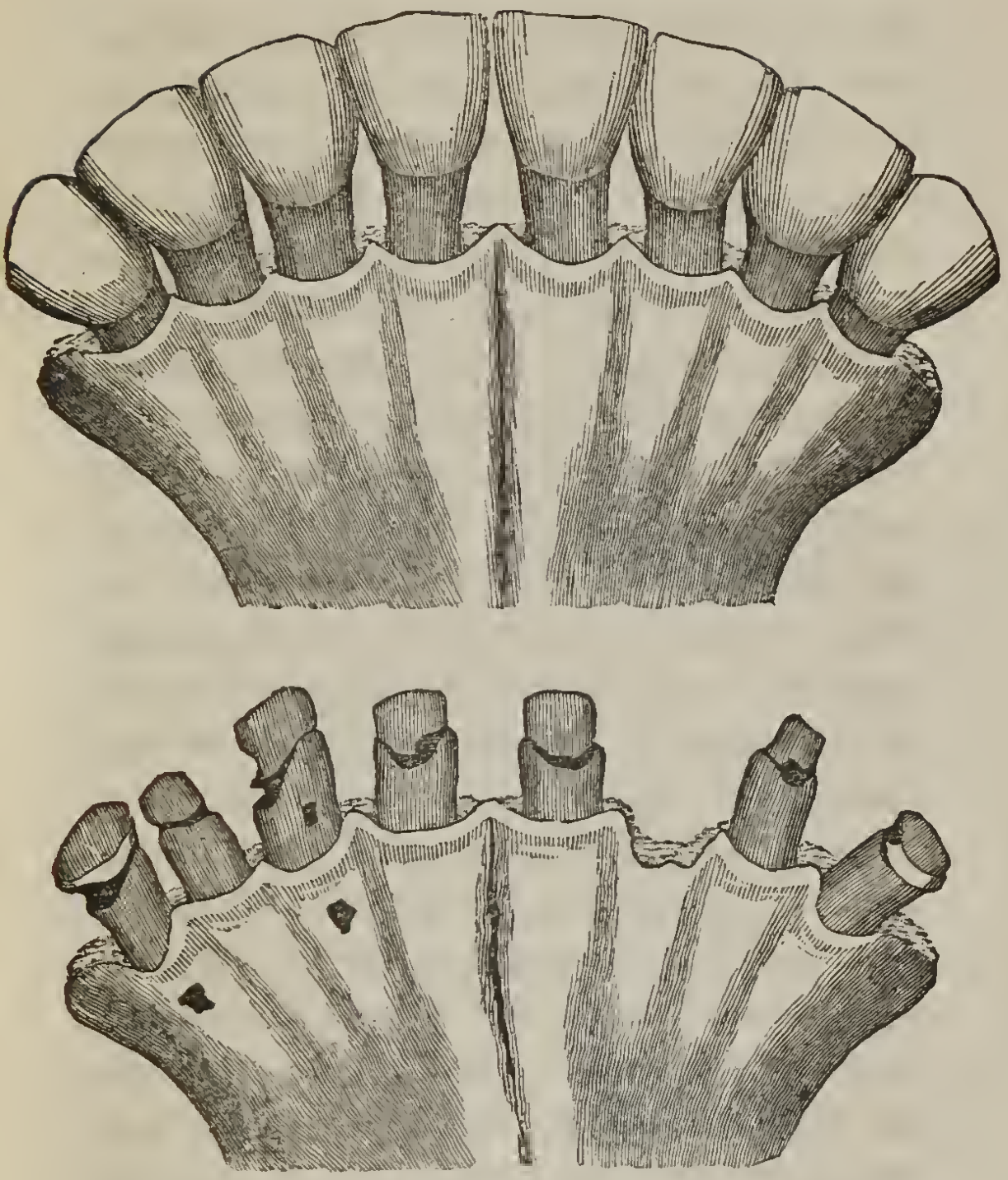
some persons can chew substances of a blood heat, without inconvenience, when a piece of ice or a mouthful of hot tea will cause excessive pain in the teeth. Is it then remarkable that they decay, when we consider how many hot and cold substances are placed in contact with them? Two common fluids in almost constant use are tea and coffee. These affect the teeth in two ways. First, the heat which they contain acts locally and directly upon the teeth; and secondly, they stimulate the nervous system, and thus remotely affect the absorbent vessels of the teeth. Ice cream, iced water, iced lemonade, or ice itself unmixed, is frequently taken into the mouth; but such practices cannot be too much condemned. It is undoubtedly true, that fluids of a higher temperature than the blood, or those, on the other hand, which are very cold, are either primary or remote causes of decay in the teeth.

"The injudicious use of such articles, too, is aggravated by the employment of them alternately; as it is no uncommon

thing for a lady first to sip a cup of hot tea; next to indulge in an ice cream, and then make use of some other article of food quite as noxious. This alternate use of hot and cold articles is peculiarly injurious."

The same writer adds that he examined large milk farms near New York, and found the teeth of the cows universally affected, wherever they were habitually fed upon still slops. These slops, as perhaps our readers well know, are taken hot from the distilleries of grain, &c., and fed to the cows in that state—the quantity of milk, for a time, being greatly increased in that way. The cows at the greatest distance from the distilleries suffered the least, as their food was coolest when it reached them.

As it may not only illustrate our subject, but also instruct our readers in the anatomy of the teeth, we have procured from the work mentioned above, the two following engravings.



The first engraving represents a portion of the jaw of a cow which has been fed, always, upon natural food. It will be seen that the teeth are perfectly healthy, and

the enamel—the hard substance which coats the tooth wherever it projects beyond the gum—sound. The portions of the jaw which support the teeth, forming their sockets, and are called the alveolar processes, are also healthy. Nor is there any accumulation of tartar between the teeth; on the contrary, they are firm and white.

The second engraving represents the teeth of a cow fed upon hot still slops from an adjacent distillery. Here it will be seen, first, that the whiteness of the teeth is gone; in other words, they have lost their enamel. In truth, the teeth at the sides of the jaw are the only ones on which any enamel can be seen. Nor is the decay confined to the enamelled portion; even the bony part of the teeth has suffered; for these teeth are evidently smaller than those in the preceding engraving, although the jaw is of the same size. Caries has also affected them, as may be seen by observing the black spots in the teeth. The alveolar processes have likewise become diseased; ulcers have formed at the roots of these teeth; the portion of bone

opposite these roots has become affected, and is broken off; and one of the teeth has quite disappeared.

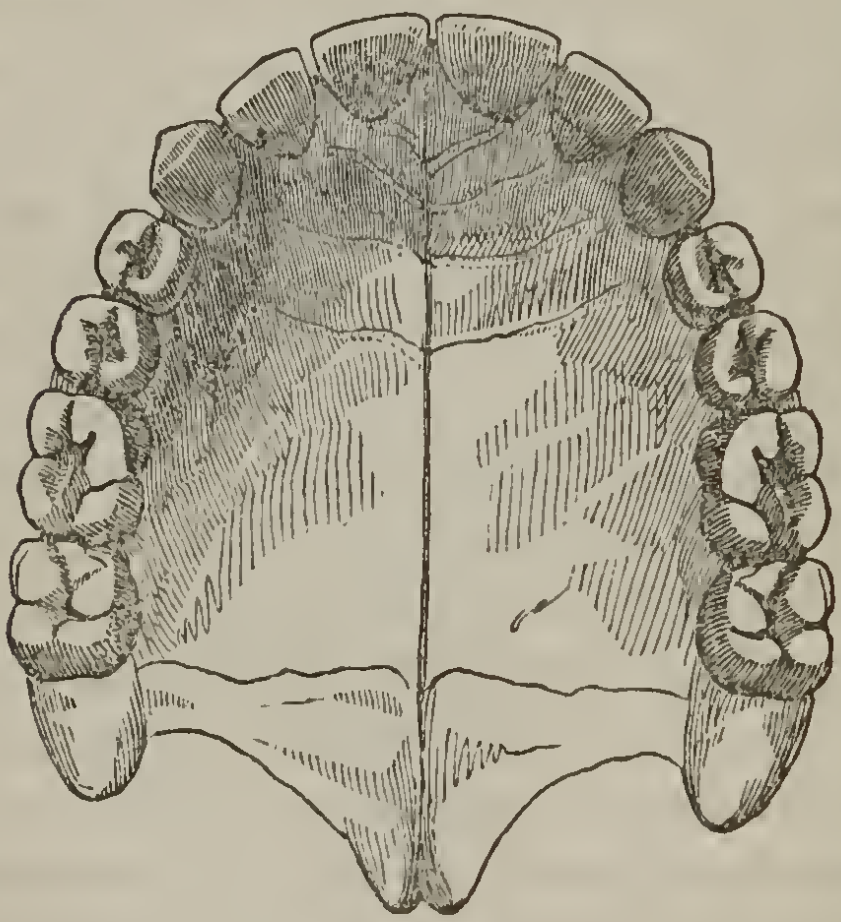
Since the above was prepared for the press, we have received a letter from the writer just referred to, the importance of which is so obvious, that no apology will be necessary for our inserting it entire.

"DEAR SIR:—I send you the following few observations connected with an important subject; which, although hastily thrown together, I hope may be of use in your endeavors to enlighten the public mind on a subject so deeply interesting to all, viz., the Science of Human Life.

"God has written with his own finger, that he visits the iniquities (or violations of law) of the fathers upon the children, unto the third and fourth generations. He has also said, that every living thing should bring forth after its kind; and if her designs were not marred and frustrated, we should see nature, till the end of time, retaining her original perfection,

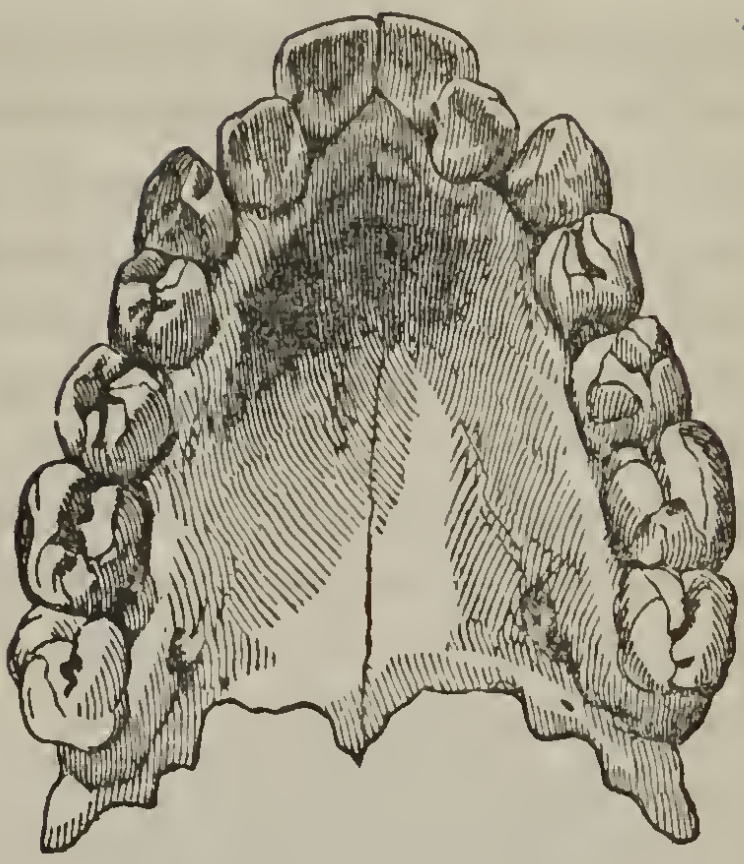
even as she came from the hand of unerring wisdom.

"In my profession I have given particular attention to the formation of the jaws and teeth, both in man and in the lower orders of animals, and have found invariably a perfect development, and the teeth regular, whenever the laws by which our animal being is governed have not been violated.



"The above drawing represents the upper jaw and teeth of an individual, a native of a southern clime, where we usually find the teeth decayed, who, until his recent visit to our continent, never had used any of our popular medicines, such as tea, coffee, alcohol, tobacco, opium, calomel, salts, or any other poison, either mineral or vegetable. He had seldom taken flesh; and whenever taken, it had been prepared simply, without seasoning or spices. His diet had consisted chiefly of the fruits of the earth, in their natural state, free from artificial preparation. His drink was the pure element which Heaven designed for the use of man.

"Descended from a race happily ignorant of our modern discoveries, his lungs and those of his ancestors were allowed the full space which their Maker designed for respiration. No corset, with a wooden or steel plate, has ever been found necessary by them, to supply the deficiency which modern mothers profess to discover in the human formation.



"The second drawing is taken from an individual of entirely different habits, and therefore of an opposite charaeter. This young man is now but sixteen years of age. He is rather young, you will say, for a *subject;* and so he is. But his is not a singular case, for thousands are in the same pitiable situation, and some much worse; and I have selected his case as one of common occurrence. This victim, then, I will say, of his parents' infractions of nature's laws, had been in the constant habit, as had his parents and grandparents,

of eating flesh three times a day, drinking their tea, coffee, &c. &c., and of having their food prepared with all the fashionable accompaniments of spices, seasoning and sauces. He has also been in the habit of smoking and of chewing tobacco, ever since he was six years old.

"His father, he states, was, on a certain day, in perfect health, (I presume he intended to say in his *usual* health, for perfect health would be impossible under such a regimen as I have been describing,) and a corpse the next; and no person could account for his sudden dissolution. Poor, abused nature, worn down and goaded to the last, was obliged to drop her burden suddenly to its kindred earth. His mother is still dragging out an existence (by no means an uncommon case) without those necessary organs so intimately connected with our comfort and health, (I mean the teeth,) in masticating our food, in order to form a healthy secretion for the sustenance of the whole body.

"The appearance of the son is diminutive—owing, no doubt, to that crying sin

of tight lacing practised by his mother previous to his birth; for it is impossible that contracted lungs in the parent can produce any other in the offspring.

"We will now contrast these two cases; and as I have the exact representation in the plates of each, the work is made both simple and plain.

"You will observe that in the first the jaw is a perfect arch well developed; the teeth regular and even—not encroaching on one another, because nature had not room to do her work perfectly, as in the other case, but all in the order and place the Maker assigned them, and causing neither pain nor inconvenience to the possessor.

"The other is a sad reverse. The jaw, although contracted, contains all the teeth; showing that nature is willing to accomplish her part, if sustained by a healthy supply from all parts of the system; but if crippled in her endeavors, is obliged to leave her work half completed.

"You perceive how irregularly the teeth are formed—the lateral and central in-

cisors crowding on each other; and that much of their beauty and utility is destroyed by the imperfect development of the jaw.

"The case just described is of frequent occurrence; and I make the assertion, authorized by daily experience, that not one individual in a hundred, of the rising generation, among the higher classes, can show perfectly developed jaws and teeth; and this proves the truth of the text quoted above, that not only does every thing bring forth after its kind, but that the iniquities of the fathers are, in deed and in truth, literally visited upon the children.

Yours with respect,

J. B.

New York, July 17, 1839."

CHAPTER VI.

REPLY TO ARGUMENTS IN DEFENCE OF TEA.

Reply to the argument that tea is invigorating. Necessity of some sort of stimulus. Nature of the strength derived from extra stimuli. Tea supposed to do us *good*—at any rate, to do us *no harm*. False experience. One's meat another's poison, considered. Waste of using tea. Said to be the business of nobody but ourselves. Why there are aged tea drinkers. Small quantities of poison in tea. Power of habit considered. Is there poison in every thing? Tea a social thing. Tea shortens life but a little. Other arguments in defence of tea.

NOTWITHSTANDING the body of evidence we have adduced to show that tea is a sedative medicine, and a poison, and that it is peculiarly hurtful when used according to the usual customs of fashionable life, we are aware that it will be stoutly defended by many; and some of the arguments they bring in its defence appear so plausible, especially when appetite is on their side,

that we have thought it worth while to attempt to exhibit their weakness.

1. The first and most prominent argument adduced in defence of the use of tea is, that it is *invigorating*.

This is certainly so, as we have already conceded;—at least it is exhilarating. But so are opium, alcohol, camphor and tobacco, and a multitude of other substances which we might name, belonging like them to the materia medica. Indeed, all the articles we have just named, camphor perhaps excepted, are in daily use for the sake of the very excitement or temporary vigor which is afforded by tea. It cannot be denied—we do not wish to deny it—that tea, like other narcotics, when taken in small doses, exhilarates, and *for a time* allays that nervous irritability which had been caused perhaps by the very tea itself; at least, in a great measure. Those only who have experienced the "wear and tear" of what is often called *nervousness*, can appreciate the value of even a temporary relief from it. The drunkard and the opium eater, goaded by the impe-

rious demands of a diseased appetite, and prompted by former experience of the relief which is afforded to their injured nervous systems—daily suffering violence—resort in the same way, and on the same principle, each to their *favorites;* but though they gain relief, they add new strength to their disease. What less or more does the tea drinker? Let truth answer.

Where is the boasted vigor which is secured? Does the dram drinker find himself stronger, at the end of one year, or five years, or ten years, than the tee-totaller? Does not alcohol afford a present apparent strength as well as tea? Yet who does not know that this strength is but a *feeling* of strength, and not a reality—or if a reality, is but temporary? Can the tea drinker make fairer or stronger pretences in favor of his "invigorating" potations than the dram drinker?

But let the matter be tested. Let the individual who claims that tea produces permanent vigor, make it, for a short time—say a fortnight—his sole aliment. Let his neighbor, for the same time—some

neighbor of constitution and health as nearly like himself as possible—make plain wholesome bread his only food. Which of the two, at the end of the fortnight, will be the man of vigor?—We need not reply to such a question as this.

2. The animal economy, it is said, needs some kind of *stimulus*.

To be sure it does; that is, if we understand the word stimulus in its largest sense. But each organ or function requires its own proper stimulus; and it should be received in nature's own proper manner. The lungs require air, indeed; and this, to them, may be said to be a stimulus; but they do not require that the air should be taken into the stomach. The lungs are the appropriate place for it. The stomach requires food and drink, but it will not receive them through the lungs; and it could not, if it would. The nervous system requires stimuli; but it is to be affected through the medium of the senses—the eye, the ear, &c., and not through the lungs or the stomach; at least, not directly.

Now when people say, as they often do, in defence of narcotic, fermented or alcoholic liquors, or even in defence of opium, tobacco and condiments, that we need some sort of stimulus, they usually mean something that operates directly upon the nervous system—something which gives immediate strength, but not that which is permanent. In fact, this is what they mean when they say tea *invigorates*. None of these things, which we have just mentioned, stimulate or invigorate except by operating on the nervous system through the medium of the stomach. What gives us permanent strength must do it by being acted upon by the gastric juice, in the stomach, formed into chyme, afterwards into chyle, and finally into blood, which is quite a long process. But the strength which tea, coffee, beer, cider, wine, spirits, opium, tobacco, &c., give us, is chiefly *immediate*, before these substances, being taken into the stomach, have any time to form blood and furnish us with strength in that way. They act upon and irritate the nerves of the lining membrane of the

stomach, and this stimulation, or the effects of it rather, (by means of the brain, the centre of nervous influence,) is transmitted to all parts of the system, and all parts seem to feel its presence and power. It is a law, however, of the animal economy, that all strength which we get in this way, by the operation of these stimuli in an unnatural way, shall be of very short duration, and shall be immediately followed by a falling away or loss of strength equal at least to that given in the first place. We say equal; but it is something more. Every gain of strength, in this way, wears out prematurely and unnaturally the vital powers; and must either be followed, when the force of the stimulus fades away, by more extra—that is nervous—stimulus, or we are worse off than we were before we took the first dose.

It will be said, we know, that tea, coffee, beer, and perhaps one or two of the other things named, as they are commonly taken, actually contain a very small quantity of nutritious matter—material from which blood can be made. They do, indeed; but

it is not the strength which is derived from their nutriment which is sought by those who use them. It would be a much shorter course for them—if that were their object—to eat a small bit of bread; as the latter would be more easily and more quickly made into blood, than the small amount of nutritious matter contained in the milk or sugar of our tea or coffee, or the sugar or acid of our beer, our cider, or our wine. It is the stimulus of the nervous system, which we seek, in their use; and in general, that only. But it is as much a wrong, for stimulus to the nervous system to be acquired in that way, as it would be to furnish air to the system through the medium of the stomach, or food or drink (could we even do it) through the lungs.

3. But tea, at any rate, does *me* good, we have heard said, again and again. Of this there can be no mistake; I am as certain of it as I am of my existence. Why, then, should I not use it?

This defence of tea drinking is founded on the presumption, that what affords im-

mediate relief, without immediate perceptible injury, must be, of course, uninjurious; thus making our own experience—a very limited experience too—sole guide of our conduct; than which nothing can be more erroneous. Solomon has long ago assured us, that "because sentence against an evil work is not executed speedily, therefore the heart of the sons of men is fully set in them to do evil;" and the remark is as true in physical matters as in moral ones, although Solomon may not have intended to make this application of his remark.

4. If it does me no *good*, it certainly does me no *harm*.

This involves the same item of defence to which we have just adverted, though it includes another or two. It especially takes for granted, that we are to test every thing by our own experience. It also assumes—or appears to do so—the fundamental but almost universal error, that "one's meat is another's poison."

Would you have us turn our experience

wholly out of doors? we shall, most undoubtedly, be asked. Is not experience said to be—has it not always been admitted to be—the best school-master?

We do not undervalue experience—by no means; nor would we, above all, have it turned out of doors. But there is a false experience as well as a true. There is at least a short-sighted experience. We have known several individuals who could not digest their dinner till they had chewed a piece of tobacco; and one person who thought he could not get along without swallowing some juice. The experience of these individuals was therefore in favor of the use of tobacco after dinner. Ought they not, then, to have been governed by that experience? And more than this; did the stimulus of the tobacco, and even of the tobacco juice, do them any harm?

But we have a case still stronger. We have, ourselves, used both opium and brandy for a short time, with what a short-sighted experience would call immediate benefit. We found ourselves enabled by both of these drugs, used at different times,

to perform more labor, mental and bodily, than without them. We feel, indeed, very confident that we could do at least one quarter more work, and do it better, too—for six months together—with the assistance of a gill of French brandy a day, taken in three or four doses, or two grains of opium, than we could without. Does not our experience tell us, therefore, that we ought to use them—we mean one of them? To refuse to use either, would it not be to turn our experience out of doors?

We say that such experience is false experience; and must be corrected by science, or the experience of others. From this source we learn, that to those who are in any tolerable degree of health, opium and brandy are poisons; at least, in the end. If the general rule is, that they are poisons to the human constitution, by what magic do you expect to escape, in the end, their deadly influence?

Or will you say, that there are different constitutions; that what is meat for one man or person is poison to another? We know, full well, that habit is exceedingly

powerful, in enabling us to become accustomed to that which is even allowed to be hurtful to us. But this is not saying, that there is no loss of vital power or energy, in getting thus accustomed to what is not natural; nor that such distortions of the constitution do not, sooner or later, induce or aggravate disease. It does no more than to prove, that the human system is very accommodating.

It is in this latter way and sense alone, as we apprehend, that it can with truth be said, that what is meat for one is poison for another. As a more general rule, the food or drink which are best for one person, are best for another, unless he is distorted in his habits and tastes, by that custom or second nature, which is stronger than first nature—which leads men to love the taste of tobacco or even of putrid meat, cows to love fish, cats bread, and dogs tobacco. The human constitution, in its unperverted state, is *one* in the different individuals of the world, as much as the constitution of cows is the same in all cows, and of horses in all horses. There

is, indeed, in both the human animal and the brute, a power of accommodation to change of circumstances.

Our experience in these matters is valuable, and never to be despised, or turned out of doors, because it tells us of many things that would seriously or immediately injure us; but it fails to tell us of all the things that are hurtful to us; and hence needs to be corrected by that of others.

In the use of tea, few individuals perceive immediate injury from its use. They who do, it is hoped, need not the arguments of this essay, but obey the laws of their constitutions so far as to abstain from what they know is destroying them. Common sense would dictate as much as this. But with those who perceive no hurt to arise from its use, or perhaps find that it actually relieves certain bad feelings, such as a cold stomach, as they call it, or a nervous headache, argument, and fact, and experiment, and science are necessary to correct what must be obvious to them upon a candid view of the case, we call by the right name, when we call it their false experience.

But many will still insist upon it, that if tea does them no good, it does them no harm.

Are they quite sure of this? We remember a very sick patient of ours, whose stomach needed rest just at that time more than almost any thing else, and was indeed so clamorous to be let alone, that it would reject almost every thing which was taken. At length we got it quiet, in the use of a small quantity of some very simple nutriment—we have forgotten what—say a table spoonful of milk at stated intervals of four hours. Nature, over-burdened no longer, was now just beginning to recover her wonted energies, when the kind but impatient mother began to press us for permission to give her a little pumpkin seed tea. She was sure it would not *hurt* her daughter, she said, if it did her no good? Alas! how little did she understand of the operations of nature in effecting the cure of disease. We not only forbade the interference in a decided but kind manner, but we also endeavored to show her the reasons of our proceeding thus.

We endeavored to show her that what we were now giving was all that the testy stomach would bear with safety, and without extending morbid sympathies, and thereby doing mischief; that a quantity of fluid as simple, even, as pumpkin seed tea, would serve, as far as it went, to fill up the stomach; and thus interfere with the plan we were endeavoring to carry out. That, finally, there was no such thing as having a substance, either solid or fluid, however simple, neither do harm nor good; that neutrality, in such matters, was an absolute impossibility. From what followed, in the history of her daughter's complaint, we had good reason for believing that the pumpkin seed tea was administered, and that thus ignorance had, as it often does have, a temporary triumph.

You say, the tea does you no harm, at any rate? Would not the space which it occupies in your stomach, be better occupied by something else? But if so—if you load this organ with the *worse*, when you can as well have the *better*, is it doing no harm?

Is it no evil to you, moreover, to be in the daily use of a substance which, if it does you no other harm, must be constantly increased, either in strength or quantity, or it ceases to afford you even temporary enjoyment? Is it no evil to be constantly in danger of going to that excess in the use of a thing, which is often attended, as we see in the case of tea disease, as described by Mr. Cole, "with very much danger of intemperate habits?" Is there, we repeat it, no harm in exposing ourselves to temptation?

But, finally, is there no harm even to yourself, in the waste of time and money which tea drinking necessarily involves? For be assured, that the tax you pay, in this way, during a long life time—or even during a term of time quite moderate, should you have a term no longer allotted you—is no very small sum.

Suppose the value of the time and fuel—at a moderate valuation only—which are consumed in making tea a year, together with the cost of the tea itself, saying nothing at present of the additions made to it,

were put down at six dollars only to an individual a year (which seems to us much less than the reality.) Suppose a person were to spend this sum every year, from twenty years old to sixty; an age to which some tea drinkers last. The principal sum thus expended would be $240; but as it might, with its annual interest, be put at interest every year, the amount at compound interest would be the true amount; and this would be no less than $706. Can it be justly said, that a substance does us no harm, which consumes so much of our earnings during a life time of only sixty years?

5. Some will still say—Well, suppose tea hurts me a little, or wastes a little of my property, it is nobody's business but my own.

Is this so? Are you not a member of society? And do you not violate a duty which you owe to society, when you pursue a course which unfits you, in the least possible degree, for usefulness? Has your example no influence? And have you a

right to set an evil example, even though the evil which you thereby confirm were but small? Should you do this, would you regard yourself as a good citizen; and ought you to be regarded as such by others?

Have you no relative duties to perform? Have you neither father, mother, brother, sister, son or daughter, who may need your wasted earnings, provided you never should? Can you with a clear conscience waste that time or money—and time is itself money—which, if not wanted in the education of your children, may be wanted by them, or by some of your other friends hereafter? Besides, are there no deeds of charity to be done in the world?

The sum of $700, is no mean sum to be expended for the welfare of the souls and bodies of your children, or for the souls and bodies of those around you. We know not what sort of a conscience the person must possess, who can say he has a right to expend such a sum on that which does him no sort of good, and yet say it is nobody's business but his own.

6. But it is impossible, we shall hear it said, after all, that tea can be poisonous. How many of our very oldest people have been tea drinkers!

If the principle involved in this defence of tea were valid, it would be equally so as a defence of the use of opium, tobacco and alcohol; for we find, here and there, a very aged person, who has gone to excess for twenty, thirty, forty, or even fifty years, in some one of these. Will any one, at the present day, undertake to say that alcohol is not poisonous, because a considerable number of drunkards can be found who have attained to a great age?

The truth is, that the human constitution will often endure abuse a long time, without much *apparent* injury; especially when along with one form of ill treatment, it is treated kindly in every other respect. The drunkard, if he is temperate in the use of food, if he rises early, (and many drunkards do *all this*,) and if his other habits of body and mind are correct, may live on to a considerable age, notwith-

standing the evil tendency of his drunkenness. So may the inveterate tea drinker.

Still it is true, that the most robust constitution is more or less injured by all such abuses; and a tippler, whose iron constitution endures to fourscore, might live longer —perhaps ten or twelve years longer—had he been prudent and abstinent. The same remark will apply to aged tea drinkers.

It is not true—we repeat it—that any of the intoxicating or narcotic drinks, nor any of the drugs which are in common use among us, can be used without either immediate or remote injury. They all either create an unnatural thirst, or in some way or other disorder the system. You cannot find one person in ten, who uses them habitually, but what has some incipient complaint; and many of our daily devourers of stimulating drinks and drugs, are little less than a bundle of complaints. Generally, no doubt, they suppose their favorite drug or beverage mitigates their woes, because by its action on the nervous system it produces quiet for a time. They are mistaken, however. They always in-

crease the evil more or less, in the end; and are often the original cause of it.

7. It will be said, that if there is poison in tea, it must be in small quantity; so very small indeed, as not to be injurious.

We have already attempted to show, that poison does not cease to be poison by being minutely divided. On the contrary, there is great reason for believing, both from analogy and fact, that the smaller the quantity we take, the more *in proportion* to its quantity does it injure us. When the dose is large, all the powers of the system, as if aware of its presence, seem to unite their forces to repel it, and it is soon thrown off; whereas, if the quantity is small, it appears to steal its march, unperceived, upon the system, and to wind its way to almost or quite every part of it, poisoning wherever it goes. This is certainly the case with calomel and many of the other medicines, as we have said elsewhere; and why should it not be so with all?

But let us recur, once more, to the recent experiments of which we have spoken at page 53. If these experiments can be relied on—and we know not that their correctness can be questioned—we see at once, and in a light which cannot be mistaken or resisted, whether the quantity of poison in tea is or is not so small as to be unworthy of our attention.

No lady, we suppose, would think herself extravagant who uses only a pound of hyson tea in three months. Yet a pound of hyson tea, boiled down to half a pint, would kill, according to the experiments, 17,280 rabbits; which is within a fraction of being equal to 190 rabbits each day, for the period of three months, or ninety-one days. Or if boiled down to a gill, instead of half a pint, would kill 10,860 young cats—the latter are rather tougher than rabbits—equal to 119 a day.

Does any one believe—can any one believe, for a moment—that the strongest female in the world can take poison enough in a day to kill 190 young rabbits, or 119 young cats, and yet escape injury? Or if

she could do this for *one day*, could she endure it day after day, for three months, or ninety-one days, uninjured; and not only for three months, but year after year, for a whole life?

8. But I have long been accustomed to its use, says another stout defender of the use of tea; and habit, you know, is every thing.

Habit is powerful, but not quite *every* thing. Nor do we believe it to follow, that because we get so accustomed to a thing, that it *appears* to make no impression, therefore no impression is made. We have heard of Mithridates, who, it is said, so accustomed his stomach, by daily use, to active poison, that his enemies could not poison him to death, should they desire to do so. Nor has any age, nor any community, been wanting in examples, quite numerous, of this hardening process, or Mithridation. Yet is it our full and decided belief, that there is always a waste of vital energy, proportioned to the apparent gain of the hardening. Habit can

never inure us to that which is hurtful, without a corresponding loss of vital power and energy, to say nothing of the increased exposure to, and danger from disease.

This last point is so seldom insisted upon by writers on health, that we must devote a single paragraph to its special consideration. It can never be too often repeated, that notwithstanding the so much boasted power of habit, in hardening us against the influence of deleterious agents, every person who uses them is either inviting disease to fasten on his system, or preparing himself to suffer more severely than otherwise he would from its attacks, whenever it comes. No person can take a single dose of any of those substances which we call extra stimulants—at least, without the direction of a skilful physician—and not be rendered liable thereby to suffer more from every succeeding disease with which he is afflicted, as long as he lives; nor without the risk of losing his life, by diseases from which he might otherwise have escaped.

But the argument, drawn from the

power of habit, in enabling us to withstand the influence of injurious agents, if it proves any thing at all, proves quite too much. Giving it the weight which is claimed for it, we see not why it would not prove that tobacco, and opium, and arsenic, and prussic acid, and alcohol, and lead, and calomel, and the virus of the mad dog, even, are harmless to the human constitution.

Tobacco, for example, is well known as a violent poison. Five or six grains of the powdered leaf will operate on the unvitiated system as an emetic; and with considerable violence. Dr. Mussey says, that the tea of only twenty or thirty grains of it, introduced into the body for the purpose of relieving spasm, has repeatedly destroyed life. Nothing more than the application of moistened tobacco leaf to the surface of the body has often caused considerable sickness. Yet multitudes of our race, by beginning with very little of it, and gradually increasing the quantity, have come at length to the daily use of

half an ounce of it—240 grains—without perceptible injury.

A grain of OPIUM is considered as a medium dose, in ordinary cases of disease, for those who are unaccustomed to its use; and four or five grains, in the case of those unused to it, have destroyed life. But mark the power of the living system to resist immediate injury, and to become accommodated (though not, we say again, without loss) to its presence. In some cases, two drams, or one hundred and twenty grains of it, have been given to a person in twenty-four hours; and in a single instance, the quantity was increased to three ounces, in the form of tincture, a day. Russell, in his history of Aleppo, says, that Mustapha Shota, a Turkish opium eater, had accustomed himself gradually to the use of three drams—180 grains—of it a day, and was unsatisfied with that. We have ourselves known those who had consumed a quantity almost equal to this; and a neighbor of ours, who had used it in immense quantities, for thirty or forty years, died lately at the age of fourscore.

Dr. Eberle says, that one fourth of a grain of ARSENIC excites chills; and doses which exceed a grain destroy life. Dr. Paris states, that the influence of arsenical vapors, near the copper smelting works of Cornwall and Wales, is very apparent, in the condition of the animals and vegetables of the vicinity. Yet laborers in the furnaces of Hungary, where arsenic is prepared from the ores of the cobalt mineral, who spend their whole lives in them from their youth, live from thirty to forty years.

Three ounces of whiskey—and probably much less than an ounce of pure ALCOHOL—are sufficient to kill a rabbit in a very few minutes. Yet some men will take a quart or more of spirits a day, for many years, before they are destroyed.

PRUSSIC ACID, poisonous as it is—so poisonous that a single drop of it will kill a rat or other small animal instantaneously—may be so used, that in a short time a person can bear a considerable quantity of it every day, without immediate apparent injury.

The deadly poison of WHITE LEAD, sugar

of lead, &c. will not be questioned. Yet people have been known to labor some tens of years in lead factories, ere their health gave way, or ere they could be made to believe that the lead was injuring them.

It takes no very large portion of CALOMEL, given at once, to destroy life; and yet individuals have been known to take this substance with perfect impunity, for a great length of time. Nor have its frightful effects, in diseased bones and tendons, been manifested, in some cases, for years.

A Mr. Whiting, of Poultney, Vermont, died not many years ago, with every symptom of hydrophobia. Yet he had been bitten by a diseased dog about twenty-eight years before.

Now if becoming accustomed to the presence of a poisonous article in our systems saves us from being injured thereby, the laborers in lead factories, and in arsenic, ought not to die in such a way as they do. Nor ought the tobacco chewer, or opium eater, or spirit or tea drinker, to be subject, as they usually are, to a series of

terrible ills in the end. Nay, if custom saves from injury, let the glad news be published forthwith to all parts of the world where there are opium eaters, dram drinkers, tobacco users, or the swallowers of any other poison. Let them be speedily informed, that if they can once accustom themselves to the *much longed for*, they may henceforth feed and feast upon it *ad libitum*, without danger or fear of danger.

9. But there is poison, some will tell us, in every thing. The farinaceous grains yield it to the distiller, and the fruits to the makers of wine and cider. Our food would probably be of no use to us, if there were no spirit or poison in it.

Now if it were true that poison is contained in fresh fruit, then, in order to produce intoxication, we have only to express the juice of the apple, the grape, the currant, or the peach, into a cup, and we have the means in our possession at once. There will be no necessity of waiting for fermentation or any other change, a single moment. Nay, we need not be at

so much trouble, even, as this. We have only to eat a sufficient quantity of fruit, and we shall accomplish the same object. But every person of common sense may satisfy himself, by experiment, that this cannot be done; that whatever other effects may be produced by either farinaceous grains or fruits, no quantity of them, however large, can be made to produce symptoms of intoxication.* We should not be slow to challenge the whole world, to produce a credible instance of the kind, in man or any other animal.

Molasses, it is said, can be made to produce New England rum—pint for pint. But if a pint of molasses will make a pint of rum, which is the undoubted fact, then half a pint ought to make half as much. But if because half a pint of rum can be made from half a pint of molasses, therefore the latter contains the rum, then it ought to have an intoxicating effect, corresponding, in some degree, to its quantity. Yet we have taken half a pint of molasses

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* See our remarks on this subject, at page 51.

at a time, without the slightest intoxicating or even exhilarating effect.

Alcohol is formed from the sugar, or sugar and starch, contained in the fruits and grains used for the purpose; in order to which they must be submitted to a certain chemical process. In this process the chemist discovers that the sugar, or sugar and starch, have disappeared, and alcohol and carbonic acid gas have taken their place. The weight of the new products always equals that of the substances which have disappeared.

If the sugar or starch which exists in grain and fruit, and which may be obtained from them without a change of properties, is poisonous, then indeed must we admit that there is poison in wheat, corn, apples, &c. But before we can adopt such an opinion, we must have at least "a shadow of proof."

It is, indeed, true, that alcohol is formed from sugar and starch, as we have already admitted; but such are the changes that must take place in its production, that no agreement can be discovered between their

properties. The conversion into alcohol is quite easy; yet it is said, that the re-conversion of alcohol into sugar and starch is impossible. So far, then, is alcohol from being a constituent of grain, that it has never yet been discovered in a single living vegetable, no, nor in any living thing: and there is a sense in which it may be said, that God the Creator never made it. He made, indeed, the elements, as he made iron; but if he made spirit itself, then by the same rule may it be said, that he made swords and bayonets and daggers. Let him, therefore, who shudders at the idea of imputing the latter work of human invention, to a benevolent Creator, take care how he charges on the same Creator the crime of making alcohol.

We have entered into this long discussion, in regard to the origin of alcohol, to remove an objection, which in the minds of many is really a strong one, that there is either alcohol, or some other poison, in every thing of consequence which we eat or drink; and that this is the constitution of things as they came from the hands of

the great Creator. We trust, however, that we have sufficiently exposed this error.

10. We often hear something like the following argument adduced in defence of tea. A meal without tea, when we have been so long accustomed to its presence, seems so naked and so unsocial, that I cannot away with it. I feel at a loss, even, for conversation, when I do not have it; and I feel as if I had taken nothing when all is over.

All this is the result of habit. A child who has never taken any thing but milk, or bread and milk, for his meals, perceives no want of variety—none of that which you call nakedness in his meal. Nor does he feel, when all is over, as if he had eaten nothing. Nor need you. When you have eaten a hearty meal of wholesome food, without your tea, you would be as well satisfied with your meal, as the child is when he has just taken his bowl of milk, were it not for the tyranny—nay, we might even say, the slavery of habit.

Let those who feel thus, consider for a

moment how great their slavery is to this particular beverage. They will sooner go without their food than their tea, thousands will tell us, even when they use no milk, nor cream, nor sugar in it. And yet there is not a particle of nourishment in it, to say nothing of its positive poison. How painful is it to see people of good sense—and thousands and millions there are of the class to which I now refer—who are quite contented to sit down to a breakfast, or a supper, with scarcely a mouthful of any thing else but their tea, so they can but have that; and have it too, so burning hot as to scald the very tongues of salamanders, were they not so brought up as to be fire proof. How painful to see them thus cheated! thus deluded! thus vainly supposing their tea gives them strength and does them good, when it only excites the nervous system a little, and imparts to the muscular system a little temporary strength—of that which ought to be expended elsewhere—leaving the general system wholly unsupported, (for all the mere tea in the world can never make a par-

ticle of real blood, or give an ounce of real strength) and their own minds and bodies enslaved to that which is not bread, and which does not and never can satisfy any real want of the physical frame.

11. Driven from every point of defence, and as almost a last resort, we hear some of the defenders of tea say—Well, admitting what you teach to be true; admitting the use of tea shorters life a little, I am determined to drink it—not indeed in excess, but in moderation. For what purpose do we toil and labor to earn property, if we may not make ourselves comfortable with it? Besides, if life could be lengthened a little by laying it aside, who would make the sacrifice? Who would forever be miserable, for the sake of five or ten years added to a helpless and miserable old age?

This defence is very complicated, and assumes, as true, many things which are not so; and some which we have already shown, in the foregoing pages, to be false. However, we will consider the objection for a moment, and briefly, just as it is.

Our first remark, in the way of reply, is, that in lengthening human life, by the avoidance of petty poisons, such as tea, we lengthen not merely the period of old age, but every period—childhood, youth, and maturity. Besides, if we were to avoid tea, through life, as well as every thing solid, liquid or æriform, which is hurtful, we should not have what is now commonly called old age—we mean a season of pain, infirmity, decrepitude, and bodily helplessness; ay, and sometimes, too, of mental imbecility. We should indeed decline, but the descent would be as easy, at least, as was the ascent, when we first merged into existence. Who does not look back with pleasure to the scenes and the joys of his first childhood? And how few do not sigh when they realize that it is gone! But why should the first childhood be joyous and happy, and the second be sad, and lonely, and painful, and miserable? It need not be so. It should not be so. It must not be so. Life in its every stage must be redeemed, its last stage no less than the first. Its old age must be its

autumnal moonlight evening; and its termination as the going out of the evening lamp, simply because its oil is exhausted, and the stock can be no longer replenished.

It is assumed, in the defence of tea which we are now considering, that mankind have a right to use their property in such a way as they please, without regard to the good it may do, or the example it may set, provided they promote by it their own comfort and happiness.

But does tea drinking promote human comfort and happiness in the end, even when drank in moderation? We think we have shown, most conclusively, that it cannot.

As to the right of using our property as we please, we deny it altogether. Our property, like ourselves—with all our powers and faculties—is, on christian principles, the Lord's. We are only his stewards; or at most, the borrowers of his property. We hold nothing at all as ours forever. Now have we any right, as christians, to waste the property which God

has merely lent us? But is not the use of tea a waste—to say nothing worse of it? We think we have proved it to be so, beyond the possibility of a question, in the mind of any candid individual in the world, who will examine what we have written.

But if it be a waste to use tea, it is a waste which is not a very trifling one, after all. It is no trifle to spend over $700 in the course of one's life for "that which is not bread"—which neither does nor can do us any good. How much good might be done with $700!

It is not $700 alone, however, which is expended upon tea. Every one who pursues a course of tea drinking, not only expends—at six dollars a year—this large sum, but he is also accessory, by his example, to the expenditure of the same sum by many others. We are creatures of imitation. The example of every individual has its influence on other individuals. If tea drinking is a national sin, and if the consumption, in the United States, of 20,000,000 dollars' worth of tea

yearly,* is not only a national sin, but a national waste, to say nothing more of it at present, is not every one who uses tea at all, more or less involved in the guilt of this great national waste? We see not how it can be otherwise.

But $20,000,000 a year is no small sum to be wasted. The greatness of the waste will best be seen by considering the good it might do. It is equal to the support—the entire support—of at least 50,000 families, or 250,000 persons. It would employ 50,000 teachers of common schools. It would support 30,000 ministers of the gospel. It would sustain from 50 to 60 times as many foreign missionaries as are sustained. Strange enough, surely, that we should waste, every year, over our tea

* If the average amount of tea used every year in the United States be 15,000,000 pounds, it would be about a pound, upon the average, to each individual; and the average expense for it—in time, money, &c.—to each man, woman and child in the nation, could not be six dollars a year, or any thing like it. Still, multitudes of real tea drinkers consume at least six dollars in this way every year, and in all probability much more.

cups, nearly sixty times as much as we pay for the support of foreign missions!

We should not forget, moreover, that it is not for one year merely that we are accessory, if we use tea, to this mighty waste of property, but it is for every year; and the waste is probably increasing. If we now expend nationally $20,000,000 a year in this way, we shall ere long, in all probability, expend 25 or $30,000,000. The fever has not yet, it is greatly to be feared, risen to its height.

We do not wish to conceal the fact, that during the year 1838, there was a little less tea imported into the United States than the average amount for several years preceding. The amount imported for that year was only 14,418,112 pounds, whereas the average for several preceding years was about 16,000,000 pounds. But it should not be forgotten that this falling off was during the time of the great commercial distress of this and other nations; and that there is every reason to believe that a much larger amount must have been imported in 1839. In 1840 it is probable

the imports will be nearly 20,000,000 pounds.

If our estimate of the annual expense to the people of the United States for tea is correct—and we strongly suspect, after all, that $50,000,000 for the whole expense would be nearer the truth than $20,000,000—it is worth while to go a step farther, and make a rough estimate of the aggregate expense, at the same rate, for forty years. We suppose, it is true, that the consumption of this article will increase, not only in proportion to the increase of the population, but in a ratio still greater, corresponding somewhat to the ratio of increase between the years 1820 and 1840.* We suppose also, as we have already said, that the annual expense to the whole community, in time and money, will be $50,000,000. Still, in order to avoid the possibility of exaggeration, we have put it

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* The tea imported in 1820 was not far from 5,000,000 pounds; while that in 1840 will be at least 16,000,000, perhaps 20,000,000 pounds. The population of 1820 was a little less than 10,000,000; that of 1840 will probably be about 16,000,000.

down at $20,000,000 a year. Now it requires no more than common school boy efforts to show that the amount, at compound interest, of $20,000,000 a year for forty years, would be $2,824,000,000.—An amazing sum to be spent in a way which, at the best, does no good!

We may now bring the question fairly before the tea drinker, what mighty gain is secured by being accessory to the swallowing of a quantity of hot drink which, in forty years, would cost $3,000,000,000 nearly, and which, drank at a moderate strength, would fill twice the Great Western Canal in the state of New York;—a canal which, be it remembered, contains a sheet of water about 30 feet in width, and 40 feet in depth?*

There is one more estimate we would gladly make, if we could. We would find out how much of health and life are destroyed by tea in a single year. But it is hardly possible to approximate to the truth on this subject, because no experiments

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* See Moral Reformer, vol. i., page 300.

have been made on human beings unused to factitious drinks, in such a way as to furnish us with the appropriate data. We have had, as yet, but few Caspar Hauser's among us. We can tell pretty near how many cats, and rabbits, and birds, such a quantity of poisonous liquid would kill, that is, taking it for granted we can rely fully on the experiments we have presented, but not so well how many men, women or children it would destroy.

If it took ten thousand times as large a quantity to kill an adult man or woman as a rabbit, (though probably it would not take half so much,) it seems that the whole which is imported in a year would be enough to destroy 27,688,000 persons unused to it—more than once and a half our whole population! And can such a sea of poison be otherwise than productive of the seeds of diseases innumerable? What though we are a year in drinking it? The whole mass passes through our bodies, and acts on the living tissues. Can it be harmless?

There are two or three more arguments used by tea drinkers, to which, in closing this part of our subject, we beg leave, for a few moments, to direct attention.

It is said, the Bible does not condemn the use of tea—and are we to be wise above what is written?

The Bible does not directly condemn a great many things, which are yet condemned by the principles it inculcates. Paul says—"It is good neither to eat flesh nor to drink wine, nor any thing whereby thy brother stumbleth, or is made weak." Now if tea causes our brother to "stumble" or to be "weak," it stands condemned on this principle of Paul; and no christian who understands the matter so, should use it. We think we have shown that it stands thus condemned. Should even this be denied, it falls by another principle of the same inspired writer—"Whether therefore ye eat or drink, or whatsoever ye do, do all to the glory of God." We might defy the world to prove that tea, as a common beverage, conduces to the glory of God.

It is said by some, that they cannot

drink cold water if they would, it lies so heavy on their stomachs.

This, however, is one of the strongest evidences that the drinks to which they have been accustomed are wrong. They have been taken for the sake of the stimulus they contained; and the cold water not affording the usual stimulus, gives a sensation of heaviness. But this sensation would soon disappear on discontinuing the use of all other drinks—water alone excepted—and beginning with that very gradually. We do not really need a large quantity of drink of any kind whatever; and there is no danger in confining ourselves to water. We can swallow enough to keep us from suffering.

This single reflection, that by the universal consent of medical men, water is the best drink in the world, should be sufficient with those who profess to be christians. For by what right does a christian use the worse drink, when he can just as well have the better? But water we may almost always have, "without money and without price."

We have now finished our remarks on tea; not because the subject itself is exhausted, but because we have already gone quite beyond the limits we had at first prescribed to ourselves. Another important divsion of the same great subject—improper drinks—now claims our careful consideration.

PART II.—COFFEE.

CHAPTER I.

INTRODUCTION OF COFFEE INTO GENERAL USE.

Arabian encomium on Coffee. Its origin in Africa. Opposition to it. Gradual progress into Asia. Its introduction into Europe. Opposition it met with there. Present consumption in Europe and elsewhere. Rapid increase of its consumption.

"O COFFEE! thou dispellest the cares of the great; thou bringest back those who wander from the paths of knowledge. Coffee is the beverage of the people of God, and the cordial of his servants who thirst for wisdom. When coffee is infused into the bowl, it exhales the odor of musk, and is of the color of ink. The truth is not known except to the wise, who drink it from the foaming coffee cup. God has de-

prived fools of coffee, who with invincible obstinacy condemn it as injurious.

"Coffee is our gold, and in the place of its libations we are in the enjoyment of the best and noblest society. Coffee is even as innocent a drink as the purest milk, from which it is only distinguished by its color. Tarry with thy coffee in the place of its preparation, and the good God will hover over thee and participate in his feast. There the graces of the saloon, the luxury of life, the society of friends, all furnish a picture of the abode of happiness.

"Every care vanishes when the cup bearer presents thee the delicious chalice. It will circulate fleetly through thy veins, and will not rankle there: if thou doubtest this, contemplate the youth and beauty of those who drink it. Grief cannot exist where it grows; sorrow humbles itself in obedience before its powers.

"Coffee is the drink of God's people; in it is health. Let this be the answer to those who doubt its qualities. In it will we drown our adversities, and in its fire consume our sorrows. Whoever has once

seen the blissful chalice, will scorn the wine cup. Glorious drink! thy color is the seal of purity, and reason proclaims it genuine. Drink with confidence, and regard not the prattle of fools, who condemn without foundation."

We copy the foregoing encomium—tirade rather—on the virtues of coffee, from the Transylvania Journal of Medicine for the close of the year 1835. It seems, however, to have been taken originally from a German Journal for 1834, for which it is said to have been translated from the Arabic of Sheik Abd-al-Kader Anasari Djezeri Haubali, son of Mohammed. We shall soon see how extravagant it is.

Coffee was introduced into Europe and America, as a common drink, much later than tea. It was indeed brought there something more than two centuries ago; but it is only one hundred and sixty-seven years since the first coffee house was opened; which was done in Paris.

Coffee is a native of Abyssinia. From thence it found its way into Arabia, in the

sixth century—probably as a substitute for wine, when that liquor was first prohibited by the Koran. It appears to have been used, for some time, however, as a medicine rather than as a common drink; for it was not until near the close of the sixteenth century that it became a favorite common drink even in Arabia. In 1511, the use of this drink had extended to Cairo.

Opposition to it was, however, ere long excited, and a sentence of public condemnation was pronounced against it, at Mecca, by an assembly of muftis, lawyers and physicians. They declared coffee drinking to be contrary to the law of their prophet, and alike injurious to soul and body. Soon the pulpits at Cairo resounded with their anathemas; all the magazines or stores of the seditious berry were burnt; the saloons were shut, and their keepers pelted with the fragments of their broken pots and cups. The tumult, however, soon subsided; for the sultan, by a public decree, declared coffee drinking not to be heresy; and the two principal phy-

sicians who had pronounced it to be pernicious to health, he caused to be executed.

From Cairo, this contested liquor passed to Damascus and Aleppo; and thence, in 1554, to Constantinople. Here, as at Cairo, it met with opposition from the dervises and others, who regarded its use as prohibited by their prophet. They called it, when roasted, a species of charcoal; and declaimed with much vehemence against the impiety of using so base an article at the table.

Coffee appears to have been carried first to Italy in 1615, and afterward, in 1657, to France: in both instances, however, as a curiosity. It was evidently beginning to be in use at Marseilles in 1679; for during that year the medical faculty of the city made it the theme of a public disputation.

We have already said, that the first coffee house in Europe was opened in Paris. This was in 1672. The coffee was sold, at first, at 2s. 6d. a cup. The shopkeeper, unable to succeed in Paris, removed sometime after this to London.

Here it was destined to a more powerful opposition than in Asia and Africa. Ministers, as well as others, declaimed against it; and some of them with not a little violence. Probably they discovered that it was used for the sake of the nervous excitement it was wont to produce, rather than for any permanent good effect. The following is said to be an extract from one of the sermons of those days, against those who were addicted to coffee drinking and smoking. We insert it as a curiosity, rather than because we approve of violent language, even against bad practices.

"They cannot wait until the smoke of the infernal regions surrounds them, but encompass themselves with smoke of their own accord, and drink a poison which God made black, that it might bear the adversary's color."

Coffee, however, like spirits, tobacco, opium, and other excitants of the nervous system—in a world where men are governed by appetite rather than by reason—was destined to have its *run;* and a prodigious run, too. For the last one hun-

dred and fifty years, its use has been extending and extending, till it is now found in almost or quite all parts of the civilized world.

The exact amount of this article used in the whole world, or indeed in any part of it, cannot now be ascertained; it can only be approximated. The quantity imported into England for the year 1832, was within a fraction of 50,000,000 pounds; but it was estimated that about one half of it was exported again. Indeed, the average quantity imported into England for the five years ending in 1838, was 50,000,000 pounds.

The consumption of coffee in the United States has been rapidly increasing for many years. In 1821, only 21,273,659 pounds were imported, whereas in 1836, only fifteen years later, the amount was 93,790,507 pounds. There was indeed a slight falling off in the quantity of coffee imported in 1838, for reasons which have been given when speaking of the same fact in regard to tea. It is believed, however, that the amount imported in 1840 will not vary

much from 100,000,000 pounds. This is an increase, in its use, of almost 400 per cent, while the population is believed to have increased only about 60 per cent. Some farther remarks may be made on this subject in connection with the Tables at the end of the volume.

CHAPTER II.

PROPERTIES OF COFFEE.

Testimonies in regard to the narcotic properties of coffee. Dr. Hooper. Dr. Paris. Dr. Willich. Prof. Hitchcock. Dr. Trotter. Dr. Dunglison. Journal of Health. Dr. Bell. Dr. Combe. Dr. Sweetser. Laude. Sinibaldi. Tissot. Linnæus. Percival. Musgrave. Mellingen. Grindal. Encyclopædia. Cole. Burdell. Slavery to this species of dosing.

In regard to the general properties of coffee, and its effects on the human system, there is now, among medical men, so far as we know, but one opinion. It is what may properly be called a narcotic medicine, of more or less power, according to its strength and the quantity used. That its appropriate place is among the articles of the materia medica, and not among the articles of food and drink furnished for our tables, there can be no possible doubt.

Hooper, in his Medical Dictionary, says —"It possesses nervine and astringent

qualities."—"It is said to be a good antidote against an over dose of opium, and to relieve obstinate spasmodic asthmas." A substance, by the way, which is a nervine, and has the power of relieving spasm, is essentially a narcotic, or diffusible stimulant.

Dr. Paris says—"It is suspected of producing palsies—and not without foundation." We might again ask—Does not this fact afford the strongest reason for its being a narcotic? Could it otherwise produce palsy?

Dr. Willich represents coffee as possessing "anti-spasmodic virtues;" and speaks, in particular, of its powerful effect on the nervous system. He says, moreover, that it is "a valuable medicine."

Prof. Hitchcock, in his "Dyspepsia Forestalled," repeatedly calls coffee a narcotic. "The bewitching influence," he says, of both tea and coffee, "lies in their narcotic properties—the same principle that gives opium and tobacco their attractions. They exhilarate the system, producing a pleasurable glow, and lessening

nervous irritability. They do this in a less degree than ardent spirit and wine, *still the exciting principle is essentially the same.*"

Prof. H. is not a medical man, but his remarks are the result not only of much observation, but of much study. We repeat it, he speaks the opinion of medical men generally; in evidence of which is the fact, that his book has now been before the public nearly ten years, during the whole of which period his assertions in regard to coffee and tea have never been publicly contradicted or disproved. The reader will please notice the last clause of the above quotation.

Dr. Trotter, in speaking of the cure of nervous maladies, says that "the only means of cure lie in a total abstinence from every species of fermented liquor, and from every thing that bears any analogy to them, such as tea, coffee, opium, *and all other narcotics.*"

Dr. Dunglison says of coffee—"It is manifestly tonic, and somewhat stimulating;" and in many of his occasional re-

marks obviously admits its narcotic tendency.

The same truth is admitted in the Journal of Health, in Fausts' Catechism of Health, and in the Catechism of Health, of Philadelphia. All this is medical authority, and of the highest kind. The latter work, conducted by Dr. Bell, says expressly, that coffee—not *strong* coffee merely, but coffee in general—has a "pernicious effect upon the stomach, bowels, and *nervous system* generally."

The testimony of Dr. Combe, in his work on Diet and Regimen, is very much in point. He says "it acts as a strong stimulant, and certainly increases our comfort for the time. Like *all other stimulants*, however, its use is attended with the disadvantage of *exhausting the sensibility* of the part on which it acts, and *inducing weakness*. This inconvenience is not felt to the same extent, indeed, after coffee as after spirits, but still it exists."

Prof. Sweetser, of Boston, says—"It has appeared to me, that even more persons suffer disturbance of the nervous system,

and of the digestive function, from the free use of coffee, than from that of tea." He elsewhere avows his belief in the opinion that its long continued use sometimes induces palsies.

Loude, a distinguished French author on Health, classes coffee among the drinks which *stimulate*, but do not *nourish*. He says—"It accelerates the functions only by shortening the duration. It doubles the energy of the organs only by doubling the debility which follows."—"*Coffee*," he adds, "*should be used only in those circumstances in which it is proper to use fermented or spirituous liquors.* It is not on account of its liquid condition, or its high temperature, but on account of its stimulating without nourishing, that coffee, like tea, produces nervous affections."

Sinibaldi, an Italian medical writer of distinction, has the following appropriate and pointed remarks:—"The commerce which we have opened with Asia and the new world, in addition to the small pox and other diseases, has brought us a *new drink*, which has contributed most strik-

ingly to the destruction of our constitutions —I mean, coffee. It produces debility, alters the gastric juice, disorders digestion, and often produces convulsions, palsy of the limbs, and vertigo."

Tissot, a German physician, says that apoplexy is often attributed to the use of coffee.

Linnæus, in his "Medical Botanical System," represents coffee as being "drying, exciting, healing, expelling, carminative, diuretic, anti-venereal, and anthelmintic;" and speaks of it as of known usefulness in a long list of nervous complaints, in which hypochondriasis and hysteria make a very conspicuous figure.—Surely, if such powers do not entitle it to the name of a medicine—a narcotic, too—we know not what could.

We have seen at page 47 the remarks of Mr. Graham on this subject; whose testimony, from his familiar acquaintance with anatomy and physiology, and pathology also, may be regarded as of the utmost importance; and who assures us that both

"tea and coffee are among the most powerful poisons of the vegetable kingdom."

Drs. Percival, Musgrave and Mellingen recommend coffee in cases of asthma; and the latter, in speaking of its medicinal effects, says it is liable to produce feverish heat, anxiety, palpitations, trembling, weakness of sight, and predisposition to apoplexy.

Dr. Grindal, of Russia, in the hospital at Dorpat, has used a preparation of the raw coffee in intermittent fevers, as a substitute for Peruvian bark, with great success. In eighty cases, scarcely one resisted the power of this medicine, whether used in the form of powder, extract or decoction. He seems, however, to have been most successful with the raw powder, given in doses of the twenty-fourth part of an ounce.

The Encyclopædia Americana, in an article which was probably written by Dr. Lieber, one of the editors, says—"As a medicine, strong coffee is a powerful stimulant and cordial; and in paroxysms of the asthma, is one of the best remedies; but it should be very strong."

We ought also to remind the reader, in this place, of the experiments of Mr. Cole, of which we have said so much in the progress of our remarks on tea. It will probably be remembered, that that learned and distinguished surgeon regarded coffee as liable to bring on all the diseased action which he referred to tea; so that there is really a coffee disease abroad as much as a tea disease; and we may regard the whole testimony of that gentleman as going against coffee as much as against tea.

Lastly, we have the testimony of Dr. Burdell, who within the last year has made experiments with it similar to those made with the decoction of tea. The following is, briefly, his statement:

"By experiments upon animals, it is shown that there is more excitement of the nervous system produced by coffee, than by a proportionate quantity of tea; but death does not ensue as quickly. In one instance, a portion of the extract of coffee was administered to a rabbit, cold. The animal died in about two hours and a half. In another instance, a like quantity was

given to a rabbit, hot, and the animal died in one hour."

We regret that Dr. B. has not given us further particulars respecting his experiments with coffee; though these may be fully sufficient to establish the fact of its poisonous character. Perhaps it appeared to him as hardly worth while to repeat a cruel experiment, to establish a fact which none but the ignorant, the prejudiced, or the obstinate will question for a moment.

Having shown, from numerous authorities, that there are the same objections to the use of coffee as to the use of tea, viz., that it is first a stimulant, and afterwards, by its more remote effects, narcotic and sedative, we hardly need to repeat what we have said in our remarks upon tea, either as regards the manner of using it, or the arguments commonly used in its defence. Hot coffee is as injurious to the stomach, teeth, &c., as hot tea; and the arguments which are usually brought in its defence are as weak as those used in the defence of tea. Indeed they are, for

the greater part, substantially the same, and therefore have been fully answered.

Nor need we attend to the defence of coffee furnished by the Arabian Sheik, with which we commenced our remarks. We only see, in that defence, the protestations of a man who was evidently enslaved to his coffee cup, and who could not bear—any better than the slaves of other exciting drinks—to hear his favorite beverage ill spoken of. The Arabians, it is probably well known, are exceedingly enslaved to this narcotic drink; and so are the Turks.

CHAPTER III.

EFFECTS OF COFFEE ON THE HUMAN SYSTEM.

Doctrine of sympathy. Extract from Hooper's Medical Dictionary. Effects of coffee on the liver. Its effects on the other organs, especially the brain and nervous system.

It remains for us to show, in a manner as intelligible as we can, the operation of the stimulus of coffee, tea, &c., on the human system, and mark the progress of the destruction they occasion.

Paul, in one of his epistles, in attempting to show the unison of feeling—the sympathy, rather—which should exist among christians, compares it to the sympathy which exists among the various parts or organs of the human body, and tells his brethren, that whether one member suffer, all the members suffer with it, and whether one member rejoice, all the members rejoice with it. Now whether the apostle acquired

this knowledge by immediate revelation, or acquired it in the medical schools which existed at that time at Alexandria and elsewhere, he uttered a most important physiological truth—one which has been fully known and recognized by the medical world time immemorial.

The law of sympathy is thus explained by Hooper in his Medical Dictionary:—"Action cannot be greatly increased in any one organ, without being diminished in some other; but certain parts are more apt to be affected by the derangement of particular organs than others." Thus, as he afterwards shows and expressly tells us, the liver, skin, and in fact the brain, sympathize most powerfully with the stomach, so that if the action of the latter is increased, that of the other organs is also increased, at first, with it, till fatigue and debility ensue. And if the stomach is weakened, these other organs are weakened also with it. The following is Dr. Hooper's own language:

"When the stomach is weakened, as for instance by intoxication, then the action of

the liver is increased, and a greater quantity than usual of bile is secreted. The same takes place in warm climates, where the stomach is much debilitated. If the liver has its action thus frequently increased, it assumes a species of inflammation, or becomes, as it is called, scirrhous. This is exemplified in the habitual dram drinkers, and in those who stay long in warm countries, and use freedoms with their stomachs.* The brain, again, is affected with pain when the stomach is weakened by intoxication or other causes."

Now if we have proved any thing clearly, in the foregoing pages, it is that the stomach is sooner or later weakened, in a greater or less degree, by the use of both coffee and tea, and especially by the use of these drinks hot. Its action may indeed be increased at first, and probably is so, but this increased action is soon followed by a proportionate debility. Then follows

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* The condition of the stomach and liver of Napoleon at his decease—who was a great coffee drinker—cannot have escaped the notice of every one who is at all familiar with his history.

that headache of which Dr. Hooper has spoken, if the abuse was great enough to produce real pain; if not, at least a dulness or uneasiness, which approximates towards distress and pain. Then follows, too, increased action of the liver, and an increased amount of bile is thrown into the circulation; and if the abuse is persisted in, a greater or less degree of inflammation of the liver. It is not beastly intoxication alone which will work mischief, as we have already seen; it is any quantity of ardent spirits, or indeed of any other excitant or extra stimulant, which will increase, unduly, the action of the internal organs. But as tea and coffee, in any quantity, however small, both of them weaken the stomach as a secondary effect, in a greater or less degree, they consequently both disorder the liver in a greater or less degree, and also the brain and nervous system.

Nor is this the whole of the series of evils. It is impossible for the liver to be thus excited, at times, to increased action, without falling into correspondent inac-

tivity at other times. The bow cannot always remain bent—it must react or rebound. The pendulum, too, which has vibrated too far in one direction, will vibrate too far in the other direction, as the natural and inevitable consequence. So with the action of the liver. After too much action, there comes a season of comparative inactivity. But this only prepares the way for a swing of the pendulum too far again in the other direction. And if the cause which at first propelled the pendulum too far one way continues to act—if the tea or coffee continue to be used—the action of the liver becomes habitually irregular, and perhaps also that of the stomach. Hence, that is, through debility, or irregularity of the action of the stomach, arise acidity, flatulence, indigestion, and perhaps confirmed dyspepsia.

But the train of evils is not yet completed. It is impossible for the stomach and liver—yes, and the brain and nervous system, too—to become habitually irregular and disordered, without having the intestinal canal disturbed also in its appropriate

action. Sometimes its action is increased—sometimes it is diminished. In the one case, we have diarrhœa, and perhaps other troubles connected therewith; in the other case, we have constipation. Either of these confirms and adds to the primary disease at the stomach and liver, and throws the system generally into deeper and deeper disorder, especially into serious if not alarming nervous affections. It is certain forms of this mighty congregation of complaints which Mr. Cole has observed, which we have denominated the tea disease, but which might, with equal propriety, as we have already said, be denominated the coffee disease, since they are produced by coffee as well as by tea. Indeed they are produced by every thing which has the power of stimulating improperly the stomach, and of imposing thereby consequent weakness upon the liver, brain, and other organs which sympathize with the stomach.

It has long been known that opium and other narcotics have the effect, on the whole, to diminish the action of the liver,

and lessen, in consequence, the natural secretion of bile—thus inducing constipation and all the host of mischiefs frequently connected therewith. Perhaps all the narcotics—tea and coffee among the rest—act much alike in these respects, except that the stronger ones perform the work of mischief and death much sooner than the weaker ones.

CHAPTER IV.

OBJECTIONS CONSIDERED.

Drinks as a condiment. Drinks as a refreshment. Popular errors on this subject exposed. Concluding remarks.

We feel ourselves obligated to notice, in this place, what would deserve no notice were it not in a grave journal, and likely to be caught at by a certain class of the community, copied into every paper which panders to vice, and thus spread to every remote corner of this land of intemperance and excess. We allude to a series of essays just now concluded in the Boston Medical and Surgical Journal, over the signature of "Senex."

In these essays, the writer, who is evidently an aged medical man, or at least holds the "honors" of some old fashioned medical school, while he admits that

"pure water, drank at the fountain, is the simplest and best diluent," maintains, also, the strange and wholly untenable position, that in an artificial state of society, drinks have two other legitimate uses—as *condiments* and as *refreshments*—and that in one of the latter ways almost every form of exciting drink, even distilled spirits, might, in moderate quantities, be useful; and he only objects to distilled spirits on the ground that their use is, just now, carried to such an excess, as to render it difficult to correct the evils produced, without abandoning them, at least for a time.

Now this is the first conspicuous attempt we have seen for a long time, from a respectable quarter—even a superannuated one—to show that no artificial drink is injurious otherwise than by excess. Every medical man, of any intelligence, so far as we have been acquainted, though he has had a set of favorites among the host of factitious drinks, has had also one or more —usually several—whom he has regarded as mortal enemies. One physician has told us that ale is the great foe of human

happiness; another, that coffee is the worst drink in the world; another, that cider is the most insidious foe; another, that tea is, directly or indirectly, the grand seducer and arch-destroyer. It is observable, by the way, that no one utters his maledictions against that form of drink of which he himself is most fond; and that thus, in one way or another, all kinds of drinks but water, have been by somebody, approved or rejected.*

But here is something new under the sun; entirely so. We need artificial drinks, at times, we are told, "to give a relish for food," "to assist digestion," "to promote appetite;" "to restore the sys-

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* A fact that would naturally lead us to think of the treatment which the swine is said to receive at the hand of Mohammedans. It seems that the prophet left directions to his followers to reject a certain part of this animal, as food, but without saying which part; the selection being left to the judgment of each individual. One rejects the head, one the tail; one this part, and another that; while they eat the rest without hesitation. So that though *all* is by various individuals rejected, the "whole hog," also, among the various followers of the prophet, is eaten.

tem speedily, when it is languid and exhausted by bodily or mental labor, or by other causes." "Tea and coffee," continues the writer, though they are also diluents, "are employed almost solely as condiments," by means of which, "we are enabled to take bread and butter, and other food, with much greater facility and relish than we otherwise could do, if we only diluted them with water." These, with beer, cider, claret and other kinds of wine, "are more used," he says, "by the temperate for condiments, than for any other purpose. Our habits are such, that many dishes cannot be comfortably eaten, and if eaten, will disturb the stomach without them. Many a stomach cannot digest a piece of cake unless it is followed by a glass of wine, cider or beer. Roast pork and several other kinds of animal food, not only relish better, but sit much more easily on the stomach, by these means. Many fruits cannot be eaten in any quantity, unless they are followed by some such condiment. There seems to be a kind of fitness, a sort of balance, be-

tween several articles and made dishes of food for each other." And for an illustration of their fitness, he cites, with approbation, the common remark among farmers, that apples and cider naturally go together; concluding this train of his remarks by affirming not only that apples will suit the stomach better when they are followed by a glass of cider; but also that "there seems to be the same connection between wine and many dried fruits, as raisins, nuts and almonds."

Such views as these, coming from the source they do, or rather presented through the medium of a public journal, will—we repeat it—have much influence in opening wide the flood-gates of every evil work. Nevertheless, if true, they ought undoubtedly to be known; and not a little credit is due to him who has the boldness, at the present stage of the temperance cause, to present and proclaim them. What a pity the writer has not given to the world his name!

But our reformer of temperance—our *hero*, we were about to say—goes a step

further still, in defence of these factitious drinks, as *refreshments*. True, he allows many of them—tea among the rest—to be narcotics, that is, according to *our* definition, poisons; yet he insists that they are all more or less useful. When the powers of the system are rather low, "their nervous operation,"* he says, "brings the system up to its level," without producing exhaustion, or what is called by some, indirect debility. But let him speak for himself.

"This point seems to be entirely misunderstood and shockingly misstated by the advocates of abstinence. They infer that because one or two bottles of wine drank at a sitting, derange the system and cause indisposition the succeeding day, that a single glass produces a similar effect, though in a less degree. This is not true. As well might we say that a moderate meal diseases a healthy stomach, since a gormandizer is liable to be oppressed because

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*Coffee, he says, is a "nervine," though he does not admit it to be a narcotic.

he devours food enough at one time, to satisfy three or four ordinary men.

"The truth is, that a speedy restoration of body and mind, usually prevents much of the 'wear and tear' of the constitution which is liable to follow a slow and often an imperfect process of self-restoration, proceeding from mere food and rest. The clergyman, who has preached three times on Sunday, if he refreshes himself with a glass of cider, wine or porter, and perhaps with his pipe, will be much less liable to feel, the next morning, *Monday-ish*—to use an expression attributed to Dr. Chalmers—than his ultra-abstinence brother, who has performed the same labor. The same will apply to the lawyer who has made a plea of several hours in length, and also to the laborer who has worked at haying and harvesting."

On reading these statements, especially the closing ones, it is impossible not to doubt whether the writer is in earnest. Is it to be believed, we are involuntarily led to exclaim, that a medical man can

seriously write thus, in a medical journal, and in the nineteenth century?

Yet if these things are so, we are bound, we say again, to receive them. If the temperance doctrines are all wrong—if the seventy-five physicians in Boston, the hundreds and thousands in other parts of our country, and the eighty in England, to whom the writer in question refers, and of whom he complains, are all wrong—and if, in one word, the world are going backward instead of forward by their endeavors to promote temperance, then are we glad to know it. If we are all dupes, but this one sage of New England, we should be glad to know it, and have the world know it; and the sooner the better.

But it is not so. This writer is wrong; entirely so. First, it is not true;—and we appeal to facts, in the case of all those who have fairly made the experiment, to bear us out in the assertion—it is not true, we say, that the clergyman who preaches three times a day is *less* likely to feel *Mondayish* the next day for drinking his glass of cider, wine or porter; but *more* so. And

the same is the fact as regards lawyers; and also laborers at haying, harvesting, &c. It is not true that there is *less* "wear and tear" of the constitution when we are sustained—even in our extra efforts—by the glass or the pipe, but in the end, *much more.*

Nor is the comparison between the use of food and that of things which do not nourish us at all, but only irritate our nervous systems, a just one. The writer confounds two things—the use of natural and necessary food, and the use of that which is not food at all, but only a foreign body in the system; which indeed gives momentary strength, but in the end, weakens us. For the strength it gives, is by acting as an irritant on the nerves, and then exciting a temporary nervous energy, which as surely causes an ultimate falling off, as water left to itself, tends to maintain a level surface.

The Boston Medical Intelligencer, the predecessor of the Journal in which the articles we are opposing were written, about twelve years ago, held forth the following language.

"That men, for a long period, will perform more work of any kind, whether muscular, mental or mixed, for any degree of excitement of spirit of any kind," —(and let it be remembered, it is the spirit of wine, cider, beer, &c. which refreshes) —"is entirely opposed to the conviction of those persons who are best qualified to judge—we mean men who have had the care and employment of all laborers of all descriptions, such as captains of vessels, travellers, superintendents of farms, manufacturers, architects, &c. These will all tell you that they can do better without spirit than with it. It is not to be denied that spirit is sometimes truly medicinal; but so is opium, henbane, prussic acid, and fifty other poisons."

This is the true doctrine—but if true, it cuts up by the root all that is said about using drinks as a refreshment. And as to the necessity of exciting drinks as condiments, this idea seems to us so fully met, in our answer to the popular modes of defending the use of tea, that we hardly need to repeat the arguments. Indeed, the very

suggestion that apples and nuts need to be washed down by a glass of cider, wine or ale; that the latter are also necessary to assist the stomach in digesting "bread and butter and other food," and that even a piece of cake needs to be washed down by some of these spirituous mixtures, seems to us absolutely ridiculous. If the writer is talking about sick people, and actually prescribing for them, we have nothing to say, for it is out of our present province; but what he says about the feebleness of the stomach will not apply to those who have any measure of what can be called health. In fact, the secret of the inability of the stomach to which we are referred, seems to be revealed when we come to be told that "roast pork and several other kinds of animal food," and fruit in any considerable "quantity," cannot be eaten without condiments. If we let alone the former, (which according to the experiments of Dr. Beaumont, is almost beyond the digestive powers of the strongest stomach,) and eat a small quantity only of the latter, we shall not need spirits—

medicine more properly—to correct the mischiefs they produce.

All this train of remark, in regard to the use of factitious drink, either as a refreshment or a condiment, may seem to some uncalled for, under the head Coffee; but it appeared to us otherwise. For if the Creator has made us dependent on any of these drinks to give a relish to our food, or even to refresh us, or to assist digestion, we would say, use a little coffee, (though we should even then be apt to wonder how Greece, and Rome, and Egypt—their laborers and their soldiers—got along without them;) but if he has not made us dependent on any, we would not encourage a departure from his plan, even in favor of this smoking beverage. But our readers may be assured that every argument in favor of the use of other drinks than water, except for medicinal purposes, is utterly futile and unfounded. They cannot even be defended as innocent.

In view of the whole subject, therefore, we are driven to the conclusion, however

sweeping it may seem, that no person can be in the habitual use of the smallest quantity of tea or coffee, cold or hot, or in fact of any drink but pure water, without more or less deranging the action of the stomach and liver, and ultimately, through these and the nerves and brain, of the whole system. Nay, we are driven to a position stronger still, which is, that no person can take these poisons at all, without, in a greater or less degree, abridging human happiness and human life.

PART III.

STATISTICS OF TEA AND COFFEE.

General remarks on the object and authentic character of these statements and tables. I. Statistics of Tea. Amount imported. Properties of the two kinds, black and green. II. Statistics of Coffee. Amount imported. General considerations. Closing appeal to the reader.

The following tables and statements are based upon documents published by authority of Congress, and may therefore be regarded as correct. Some of the facts have already been adverted to; but it seemed desirable to present them in a tabular form, both for the convenience of the reader in counting the cost of a great national evil, and for our own convenience in making the necessary suggestions to those who are disposed to do so.

I. TEA.

Teas were imported into the United States, in the several years named below, to the extent of the number of pounds placed opposite to the dates respectively.

In the year	1821,	4,975,646 pounds.
" "	1824,	6,049,676 "
" "	1828,	7,707,127 "
" "	1830,	8,609,415 "
" "	1836,	16,382,114 "
" "	1838,	14,418,112 "

By an examination of this table, it will be seen that the increase of the importation of tea into this country was much more rapid between the years 1830 and 1836, than at any other period of the same number of years which is included in the table. For while the increase between the years 1821 and 1828, for example—a period of seven years—was little more than 50 per cent, the increase between 1830 and 1836 was within a fraction of 100 per cent—a very great difference.

The diminution instead of increase between 1836 and 1838, was owing in part

to the commercial distress in this country and elsewhere; and in part, perhaps, to the decrease of exportations. The latter, however, could not have been a prominent cause of decline, for comparatively little is exported under any circumstances. The greatest exportation of tea from the United States we have observed, was in the year 1830. The exports for that year were 1,736,324 pounds. The amount of tea now used is rapidly increasing; and the actual consumption, at present, cannot be less, as we have elsewhere said, than 15,000,000 pounds. We judge thus from a review of the past, as well as from the rapid increase of population, and the diminution of the sale of spirits and wine, which will probably increase, for a time, the consumption of tea and coffee.

The amount imported from 1821 to 1837, inclusive of those two years, was 152,387,804 pounds; at an estimated cost to the consumers of $125,000,000. The amount imported in 1834, 1835, 1836, and 1837, was 64,040,927 pounds. The amount which will be imported between 1838 and

1850, inclusive of those two years, allowing an average annual increase equal to that of the years 1833, 1834, 1835, 1836, and 1837, without making any farther allowance either for increase of population or diminution of the consumption of ardent spirits, will be 245,000,000 pounds; the estimated cost of which to the consumers is $150,000,000; though the real cost of the same, including time, fuel, &c., is doubtless very much more.

The proportions of the several varieties of tea imported are nearly as follows:

Bohea,	1-20th	of	the whole.
Souchong and other black teas,	5-20ths	"	"
Hyson and Young Hyson,	9-20ths	"	"
Hyson Skin and other green teas,	4-20ths	"	"
Imperial and Gunpowder,	1-20th	"	"

We thus see that if it were true, (as some contend it is,) that the black teas are not poisonous, yet it is also true that these constitute only six twentieths—a little more than a quarter—of the whole, the remaining fourteen twentieths being what are called green teas. But *it is not true.*

That distinguished chemist, Mr. Brande, has ascertained, by actual and patient experiment, that there is no perceptible difference, in this respect, between green and black teas.

II. COFFEE.

Let us now attend, for a few moments, to the statistics of coffee. Of this the quantities annexed to the dates respectively were imported into the United States over and above what was exported during the same years, viz.

In the year 1821,	19,186,180	pounds.
" " 1822,	24,128,783	"
" " 1823,	32,075,033	"
" " 1824,	36,301,172	"
" " 1825,	41,935,694	"
" " 1826,	35,870,475	"
" " 1827,	47,727,202	"

The following amount was imported during the later years—of which we know not how much or how little was exported. Probably, however, judging from the preceding ten years, the exportations did not exceed one twentieth of the whole.

In 1830,	(round numbers) 51,500,000	pounds.
In 1834, 1835, 1836 and 1837,	365,500,000	"
In 1838,	88,000,000	"
From 1821 to 1837, inclusive,	970,000,000	"

The expense for the four years ending in 1837, to the consumers, is estimated at $120,000,000.

The importation from 1838 to 1850, at the average annual increase of the four years ending in 1837, will be no less than 1,637,000,000 pounds, at an estimated cost of $204,625,000.

In view of the mighty growth of the United States population; the abandonment, to some extent, of other stimulating drinks, while the universal fondness for excitement remains; and also in view of many other considerations, we honestly believe that although the wheels of reform should move on as fast as could reasonably be expected, the average consumption and expense for tea and coffee from the year 1837 to 1850 will be much greater than has been estimated. But suppose it should not be so; the loss of $204,625,000

will be no trifling loss to the nation. Remember, too, this is for the raw material only, without including a cent for the expense of manufacturing it for our tables.

But once more. Suppose the average cost to the nation for the next hundred years should be at the same rate,—and there is great reason to fear it will be—the expense of the raw material, as we have called it, for that time, will be no less than the vast sum of $3,000,000,000 ! !

We beg those who make the least claim to the name of christian, of christian philanthropist, of patriot, or even of good citizen, to pause ere they resolve to contribute, by their example, to swell this mighty aggregate—to cause to flow, far and wide, this mighty river of death.

Let not the appeal to *patriotism* be met by the outcry, What would China do, if she could not dispose of her tea, and Arabia and the Indies, if they could not sell their coffee? The same question might have been put, a few years ago, in relation to the production of distilled and fermented liquors, especially cider. It is found, how-

ever, that the soil which will produce *supernumerary* apple trees, will usually produce something else. In like manner we have no doubt that the soil which produces tea and coffee, might be rendered productive in other vegetables at once profitable to raise, and conducive to health and long life.

If, after all we have said, there should be any reader who is disposed to persevere in the use of the poisonous drugs of which we have been treating, we entreat him for one short hour to consider what are the benefits which are derived from this amazing expenditure of money and health.

Let him consider the united cost of tea and coffee; for they must stand or fall together.

Let him consider the loss of time occasioned in obtaining them, together with the loss of time and property in preparing them.

Let him consider what appropriation might be made of the time and money now squandered in this way—how much might be done by it in the way of social, intel-

lectual or moral improvement—how many school, village and town libraries might be bought with it—how many teachers' seminaries in this and other countries might be sustained by it—how many preachers of temperance, physiology, health, moral reform, and the gospel, might be scattered by it into our own and other parts of the world—and how many valuable tracts, bibles, &c., might be furnished, in their own native language, to all parts of a world containing 800,000,000 of people.

Let him consider the vast amount of health irrecoverably lost to those who use these poisons; the great number of diseases excited, aggravated, or render fatal, by them; and especially the mighty host of nervous diseases which they excite or strengthen.

Let him consider the constitutional debility and painful disease which is constantly transmitted to the rising generation. A physician of our acquaintance has seen an infant of only a few weeks old, suffering with pain of the stomach, when no other cause could be assigned, than the

narcotics taken by its mother. And every physician of extensive practice who has not seen similar cases, must be blind to the ills that abound in the world in which he lives, and which so seriously afflict humanity.—Many are the instances among us of parents, with very tolerable natural constitutions themselves, who by their errors in diet and drink, become the *conduits* of diseases to their offspring.

Parent! if you sow the seeds of pain and disease in so productive a soil as the susceptible frame of the tender infant, complain not if you should be required, by the just laws of God, to bend with heaviness and anguish of soul while you reap a harvest of confirmed disease, shadowy strength, and premature, imbecile old age. Look around you, and see if you do not find many parents whose children have passed already away, or are fast sinking into a premature grave, while they themselves retain much of their original vigor. Or if they are not actually sick, do you not find many who are, at half the parents' age, almost as old as the parents them-

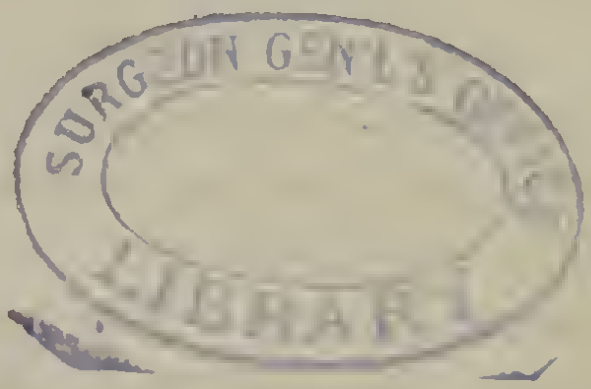
selves. And whose is the error? On whom falls the guilt of so much suffering, premature decay and decrepitude, and premature death?

Let him who cares for none of these things whereof we speak, consider the accumulated influence of an unnatural, relentless appetite, and of premature decay, upon the immortal mind and soul.

Let him consider the example of those who, having some knowledge of the ocean of misery produced by the evils we deplore, still persist in error; and let him say whether he is willing to strengthen it by his own daily practice.

We are indeed far from saying that tea and coffee are the sole authors of all the misery to which we here allude; but we do say that they come in for a full share in the mischief produced. They are among the numerous tributaries that combine to form the mighty river of premature death. And he who reforms in regard to tea and coffee, though he still retain, for a time, beer, cider, wine, or even alcohol or opium, has not only banished from his family two

exceedingly prominent members, but has begun a good work, in the proper manner, by beginning at the fountain. Let the sources of intemperance and disease—the causes of an unnatural thirst and an undue fondness for excitement—be dried up, and the larger streams to which they have so long been tributary, will ere long cease to flow.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This work is a continuation of the series of Family Books to which the Young Wife, Young Housekeeper and Young Mother belong—a series which Dr. A. has been many years meditating and preparing, and on which he has spared no pains. He takes the ground that man, though less efficient in the formation of early character than woman, is nevertheless, as a husband, indispensably necessary to its highest perfection; and in this view presents, in a popular manner, his various duties in this most interesting and important relation—not only as a social, but as an intellectual and moral agent—not only to his family, but in reference to the community at large. He would especially encourage in the Young Husband a more exalted aim—better becoming a rational man and a christian—than that of merely living in the world uninjured and uninjuring.

The following are a few of the subjects treated upon:

Choice of Occupation; Mistakes in getting a Wife; Place of Residence; City and Country compared; House and Furniture; Living by System; Morning Duties; Leisure Hours; Evenings at Home; Evening Reviews; Improvement by Conversation; Letter-writing and Composition; Keeping a Journal; Periodical Publications; Books and Study; Domestic Economy; The art of Educating; Novel Reading; The Sabbath; Sunday Dinners; Sunday Visiting; Particular Friends; Relatives; Importance of cultivating our Social Nature; Contests for Superiority; How Quarrels may be avoided; Love; Fawning; Familiarity; Delicacy and Purity; Art of Patience; Giving Pain to a Wife; Jealousy and Suspicion;

Teasing and Scolding; Fault Finding; Keeping Cool; Cheerfulness; Confidence and Reserve; Giving Presents; Jokes and Puns; Dalliance; Revealing Secrets; Value of Discretion; Taking Sides; Decision; Charities—Giving at Hap-Hazard; Conjugal Servitude; Dress and Appearance; Health; Sickness and Medicine; Duties to the Dead—Mourning, &c.; Occasional Duties—Critical Periods, &c.

THE YOUNG WIFE,

OR

DUTIES OF WOMAN IN THE MARRIAGE RELATION.

Eighth Stereotype Edition.

Embellished by a beautiful Steel Plate and Vignette.

BY DR. WM. A. ALCOTT.

This work is based on the principle, that the great business of the wife is Education—the education of herself and her family. It therefore exhibits the duties of a wife, especially to her husband, in a manner at once original and striking. The author presupposes her to have set out in matrimony with christian principles and purposes; and hence proceeds to inculcate what he deems the best methods of applying them in the routine of daily life and conversation. We believe that no one can rise from the perusal of this volume without a higher respect for female character, as well as a higher confidence in the divine wisdom of matrimony.

The following are a few of the subjects treated upon:

Submission. Kindness. Cheerfulness. Confidence. Sympathy. Friendship. Love. Delicacy and Modesty. Love of Home. Self-Respect. Purity of Character. Simplicity. Neatness. Order and Method. Punctuality. Early Rising. Industry. Domestic Economy. Domestic Reform. Sobriety. Discretion. Scolding. Forbearance. Contentment. Habits and Manners. Dress. Health. Attending the Sick. Love of Childhood. Giving Advice. Self-Government. Intellectual Improvement. Social Improvement. Moral and Religious Improvement. Moral Influence on the Husband.

THE YOUNG HOUSE-KEEPER,

OR

Thoughts on Food and Cookery.

Fifth Stereotype Edition.

BY DR. WM. A. ALCOTT.

The grand object of this work is, to promote physical and moral education. In this view it aims to render the maternal house-keeper intelligent, rather than mechanical. It treats of most of the various kinds of food, both animal and vegetable, in common use, and of the most simple and rational modes of preparing them. And in presenting what are claimed to be *improved* views or modes of cookery, it gives reasons why they are so. It shows that a large amount of time now devoted to the preparation of food and drink, is worse than wasted, and that this time ought to be and must be redeemed, and applied by the house-keeper herself to the physical, moral and social improvement of her family. It is believed that this Manual will save at least one hundred dollars a year to every large family, which may be devoted to other and nobler purposes than mere eating and drinking.

It includes the dignity of House-keeping; first principles of the House-keeper; having a plan; keeping accounts; keeping a journal; nature, character and modes of preparing the principal kinds of food produced from Farinaceous Vegetables, as wheat, rye, Indian corn, peas, beans, rice, &c., on which subjects there are from twenty to thirty chapters; from twenty to thirty chapters on Fruits, &c., and the modes of preparing or using them as food; several chapters on milk, butter, cheese, eggs, flesh and fish; the customs and fashions of Cookery as it has been and now is; estimates on the present waste in families; Cooking as it should be; how to begin the work of Reform in Cookery; a chapter of Recipes for preparing food, especially vegetables and fruit, on rational and simple principles; with several other important subjects.

THE YOUNG MOTHER,

OR

The Physical Education of Children.

Eighth Edition—Embellished by a Vignette.

BY DR. WM. A. ALCOTT.

The "Young Mother" is designed as an every-day manual for those who are desirous of conducting the physical education of the young—from the very first—on such principles as Physiology and Chemistry indicate. It inculcates the great importance of preventing evil—especially physical evil—by implanting good habits. We believe it to be the only work of a popular character, written by a medical man, on this subject, and that it is, on this account, doubly valuable. It is recommended by the Boston Medical and Surgical Journal, and by the Press generally, as a work which should be possessed by every family.

The following is a brief synopsis of the Contents:

The Nursery. Temperature of the Nursery. Ventilation of the Nursery. The Child's Dress; Swathing the Body; Form of the Dress; Material of Dress; Quantity of Dress; Caps; Hats and Bonnets; Covering for the Feet; Pins; Remaining Wet; Remarks on the Dress of Boys; on the Dress of Girls. Cleanliness. Bathing. Food; Nursing—how often; Quantity of Food; How long should Milk be the only Food? On Feeding before Teething; From Teething to Weaning; During the Process of Weaning; Food subsequently to Weaning; Remarks on Fruit; Confectionary; Pastry; Crude, or Raw Substances. Drinks. Giving Medicine. Exercise—Rocking in the Cradle; Carrying in the Arms; Crawling; Walking; Riding in Carriages; Riding on Horseback. Amusements. Crying. Laughing. Sleep—Hour for Repose; Place for Repose; Purity of the Air; The Bed; The Covering; Night Dresses; Posture of the Body; State of the Mind; Quality of Sleep; Quantity of Sleep. Early Rising. Hardening the Constitution. Society. Employments. Education of the Senses—Hearing—Seeing—Tasting and Smelling—Feeling. Abuses.

THE HOUSE I LIVE IN,

OR

THE HUMAN BODY.

Fifth Edition—much improved, with numerous Engravings.

FOR THE USE OF FAMILIES AND SCHOOLS.

BY DR. WM. A. ALCOTT.

The great difficulty of making a subject which has hitherto been deemed dry and unintelligible, at once agreeable and interesting to the young mind, has led the author of this volume to describe the human body as a HOUSE.

The work treats, first, on the FRAME—consisting of the bones, muscles, tendons, &c.; secondly, of the COVERING—consisting of the skin, hair, nails, eyes, ears, &c.; and thirdly, of the APARTMENTS and FURNITURE—by which are meant the interior cavities and organs. Nearly every anatomical and physiological term which appears in the work is so used or so explained, as to be at once clearly understood and apprehended. The subject is illustrated by numerous engravings.

The best recommendation of this work is, that it has been universally approved of by the families and schools where it has been introduced, and by all medical men who have examined it. It has also received the entire approbation of the Press. It has been re-published in London.

G. W. L. publishes various useful and popular works in addition to the preceding, and keeps on hand a general assortment of Books, for sale, wholesale and retail, at the lowest prices.